

WORLD NEWS
EUROPEMarkets in Russia rally
after 'anti-crisis' offensive

By John Thornhill in Moscow

Russia's roller-coaster financial markets took a turn for the better yesterday as investors warmed to the government's new-found commitment to bring its public finances under control.

Yields on benchmark government debt fell by 13.5 percentage points to 61 per cent, sparking a 12 per cent rally in the RTS share index. The mood of the markets was also lifted by the announcement of revised terms for the privatisation of Rosneft, the last big state-owned oil company, at a minimum starting price of \$1.6bn.

President Boris Yeltsin yesterday consulted 10 senior Russian businessmen and bankers about the country's financial problems and

promised to weave their proposals into an "anti-crisis" programme he would deliver at a Kremlin conference on June 30.

According to Kremlin officials, the business leaders made several suggestions for improving tax collection, easing the cash-flow crisis in the electricity sector by cutting off late payers, and revising railway and energy tariffs. But Russia's Communist-dominated parliament turned up the political heat on Mr Yeltsin by threatening to launch impeachment procedures against him next week.

Traders also cautioned that the rebound in Russia's financial markets was on the back of low volumes and might simply reflect a "dead cat bounce" after weeks of heavy selling. The stock

market has fallen more than 40 per cent this year because of fears that Russia could experience an Asian-style financial meltdown.

Denis Smylov, investment director at the Moscow office of Global Fund Management, said the markets were playing a "waiting game" with the government until there was further evidence of financial support from the International Monetary Fund or Russia's western partners. "At current yields I do not think there will be a big outflow of foreign money from the GKO [Treasury-bill market]," he said.

"But everyone is waiting for a financial package between the Russian government and the IMF which will explain how to lower interest rates and defend the ruble at the same time."

Oil industry analysts said the government had probably sweetened the terms for the sale of a 75 per cent stake in Rosneft enough to attract a buyer. No bidders were forthcoming when the government tried to sell Rosneft last month. The government has cut the minimum selling price from \$2.1bn to \$1.6bn and loosened investment commitments attached to the sale, which will take place in July.

Leonid Fedun, deputy chairman of Lukoil, the giant Russian oil company, said the revised conditions looked far more realistic in light of the weak international oil price.

Lukoil is part of a consortium, including Gazprom and Royal Dutch/Shell, which is thought to be the most likely buyer of Rosneft.



High finance: a Moscow woman checks currency rates

Finance minister gives Poles lessons in discipline

Expensive social welfare pledges have to be balanced against the need to rein in budget deficit, reports Christopher Bobinski

To the relief of foreign investors, Poland's finance minister, Leszek Balcerowicz, appears to be winning a battle to rein in the budget deficit, despite strains in the ruling coalition and ever-present external pressures.

Pundits say he has been helped by the unfolding crisis in Asian countries and Russia. These have provoked some capital flight from Poland, which has weakened the zloty and cut stock prices on the Warsaw bourse.

But the example which they provide of the dangers associated with financial indiscipline is adding credence to Mr Balcerowicz's arguments in the eyes of Solidarity Electoral Action (AWS), the senior government partner.

Mr Balcerowicz will need to assert his growing authority later this month when he begins to debate the shape of the 1999 budget

with other ministers. The AWS won Poland's election last autumn on a programme of potentially expensive social welfare promises. It then formed a coalition with the smaller pro-business Freedom Union (UW) party of Mr Balcerowicz.

The AWS's pledges must now be clipped to fit the tight budgets needed if inflation is to be cut from an annual 13 per cent to 5 per cent by 2002, and if the current account deficit is to be kept under 5 per cent of gross domestic product.

Stanislaw Gomulka, an academic at the London School of Economics and adviser to the finance ministry, says he expects this year's budget deficit to reach 1.7 per cent of GDP.

This figure, which does not include privatisation revenues, compares with the 2.7 per cent written in for the budget for 1998. "Next year we should aim at holding the deficit to this

year's achieved level," he says. Meanwhile, the finance ministry is taking the argument to the heartland of the potential big spenders. On Monday Rafal Zagorzy, deputy finance minister, risked the wrath of Poland's doctors, who are demanding more money be spent on health.

He presented a damning picture of an over-manned and wasteful health service, saying it was failing "to target and address the needs of patients" and was designed solely "to grow, invest and take on new personnel".

Proponents of tax breaks to encourage larger families, a cause dear to the AWS, have also been put on the defensive.

Kazimierz Kapera, an ardent Catholic and minister responsible for family issues, is worried about Poland's low birth rate.

He would like next year's budget to include tax provisions costing an additional 4bn zlotys (\$1.1bn), or around 0.7 per cent of GDP. However, the finance ministry's firm stance means that Mr Kapera has cut his request for tax breaks to a mere 350m zlotys in next year's budget.

This is despite the noisy backing of Marian Krzaklewski, the AWS leader, and Solidarity coal miners who demonstrated for a "pro-family policy" last week.

The UW-controlled finance ministry's relentless trimming of the AWS programme is fomenting dissent on the AWS's populist and nationalist rightwing.

About 30 members of parliament committed to carrying out the ambitious AWS electoral pledges have organised a group, which is backed by the influential Marjya Catholic radio station. However, they have little support in the AWS's

Kosovo leader warns of massacre

By Laura Silber at the United Nations in New York

Ibrahim Rugova, the political leader of ethnic Albanians living under Serbian rule in Kosovo, has warned of a massacre if the violence in the province and to step up its support for the Albanian population.

Serb forces yesterday sealed off the western part of Kosovo after thousands of ethnic Albanians fled a new offensive. Dozens of people have been killed in the past two days as Serb forces continued their campaign to stamp out the separatist Kosovo Liberation Army.

Mr Rugova spoke of his fear that a "dangerous situation on the ground in Kosovo" would end in a massacre in the province after a five-day visit to the US, where he met President Bill Clinton and Madeleine Albright, US Secretary of State. Mr Rugova, who advocates independence for Kosovo from Yugoslavia, said he was seeking a "concrete international presence" in the province, where Albanians outnumber Serbs by about nine to one.

Senior United Nations and US officials stressed the symbolic importance of a visit aimed at bolstering Mr Rugova's position both among ethnic Albanians and at the bargaining table with Slobodan Milosevic, Yugoslavia's president.

However, Mr Rugova stopped short of condemning the Kosovo Liberation Army, a shadowy paramilitary group fighting for Kosovo's independence. Western states seem to have muted requests that Mr Rugova publicly distance himself from the KLA because they fear he would lose ground to more radical leaders if he did so.

Senior western officials said the meeting with Mr Clinton was a "reward" for Mr Rugova, who held talks in Belgrade last month with Mr Milosevic. Officials are working to develop a plan to stabilise Kosovo amid fears that violence could engulf neighbouring Macedonia.

The US has invested considerable efforts in the talks but continuing violence has dimmed hopes of rapid progress on achieving a settlement.

At UN headquarters in New York on Monday, Mr Rugova asked Kofi Annan, UN secretary-general, to dispatch a human rights mission to Kosovo. Mr Rugova urged measures to prevent the escalation of violence, such as making Kosovo an international protectorate.

A UN official, speaking on condition of anonymity, said the half-hour meeting was meant as an endorsement of Mr Rugova, adding that the UN would have difficulty deploying UN human rights monitors unless Mr Milosevic endorsed the mission.

But diplomats and observers fear that independence could mean the demise of Macedonia, where Albanians comprise about 25 per cent of the 2m population. The Albanian population would not stand by if fighting escalated, potentially setting the stage for a wider conflict which would possibly draw in Greece and Turkey.

Danes unveil tax proposals

By Hilary Barnes in Copenhagen

Denmark's minority government yesterday announced tax reform proposals aimed at reversing the rapid growth in domestic demand.

Poul Nyrup Rasmussen, prime minister, said both public and private consumption were increasing too rapidly. "The measures combine reforms with a necessary tightening up of fiscal policy," he said. "A healthy economy is a precondition for better quality in our welfare system, to reduce debt, and to maintain the good development in employment."

The government plans to lower the corporate income tax rate from 34 to 26 per cent, reduce mortgage relief, and raise taxes on petroleum products, coal and electricity.

Marianne Jelved, economy minister, said the net effect of the changes would be to cut back on government spending by 1.5 per cent in 1998 and from a projected 2.9 per cent to 1.5 per cent in 1999. The measures would also

increase the projected current account surplus from Dkr2bn (\$280m) to Dkr3bn in 1998, and from Dkr2.5bn to Dkr3.5bn in 1999.

Mrs Jelved said a tighter fiscal policy was required after five years during which GDP growth averaged about 3 per cent.

The measures were designed "to maintain a robust current account surplus and to prevent labour market bottlenecks and wage pressures from damaging competitiveness." The plan to reduce mortgage relief addressed economists' fears that asset price inflation could contribute to over-heating of the economy.

Relief would be lowered in stages from between 40 and 46 per cent at present to a flat rate 32.4 per cent by 2002. The government estimates that the change would eventually cut the price of owner-occupied housing by between 10 and 14 per cent.

Other reform proposals included a reduction in the lowest rate of income tax, a new 10 per cent tax on yields from pension savings placed in equity funds.

Italy fails to rescue constitutional reforms

By James Biffz in Rome

Italy's marathon attempt to change its constitution collapsed last night after the main party leaders in parliament were unable to pull off a last-minute rescue of the reform plan.

Eighteen months after the parliament set out to create a new constitution, replacing the often self-contradictory one drawn up in 1948, several of the principal party leaders acknowledged that the reform process was dead.

In one of the biggest blows to the coalition government since it came to power in May 1996, Silvio Berlusconi, the leader of Forza Italia, refused to reverse his opposition to a fundamental feature of the constitutional reform relating to powers of the Italian president.

The Populist party (PPI), a group of ex-Christian Democrats who are left in the ruling centre-left coalition, made a last-minute attempt to mediate with Mr Berlusconi.

But the attempt fell through after Forza Italia

rejected the move. "It is better to take note of the fact that the distances cannot be bridged, that parliament cannot reform itself," said Giuseppe Pisanu, Forza Italia's leader in the chamber of deputies.

Gianfranco Fini, the leader of the rightwing National Alliance, who has been a firm supporter of the reform drive, was also pronouncing the last rites over the process.

"There is no room, no hope and no reasonable possibility of concluding the reforms," he said. "The political conditions are no longer there."

Massimo D'Alema, the leader of the Democrats of the Left (DS) and the driving force behind the reforms, said that a "grave mistake" had been committed, "one with implications for all political forces."

Although the ruling centre-left issue last night was over the powers of the president, the real stumbling block all along has been reform of the judiciary.

Mr Berlusconi, who faces a number of corruption allegations, had long insisted that he would not back the reforms unless they watered down the powers of Italy's prosecuting magistrates.

Because of his personal interest in the issue, the government parties have felt unable to meet this demand.

At present, the collapse of the reforms is not being seen as the precursor to a wider political crisis that could lead to early elections.

Romano Prodi, prime minister, has always insisted that the constitutional talks are self-contained and that the ruling executive has a major programme of economic reform to carry out.

But last night's developments raise questions about whether Italy will ever manage to complete the constitutional and electoral reforms that it badly needs if it is to carry out painful economic changes over the next few years.

PENSION FUNDS DIRECTIVE ATTEMPT TO SMOOTH WAY FOR LIBERALISATION MEASURES

Monti to drop tax proposals

By Jane Martinson, Investment Correspondent

The European Commission is set to drop tax proposals from its planned directive on pension funds in an attempt to guarantee success for other liberalisation measures.

Decisions on tax proposals require unanimous agreement among the 15 member states of the commission. Other crucial issues - including the criteria for the lifting of investment restrictions - simply need a qualified majority vote.

Mario Monti, single market commissioner, said yesterday: "I believe we should not insert tax provisions in the directive since tax matters have the mixed blessing

of the unanimity rule." Instead, he intends that a taxation policy group made up of senior national ministers should discuss the issue. They could do so at their next meeting in July.

The decision to shelve tax recommendations from the proposed directive comes several weeks after the European Court of Justice ruled on the Saez case, which centred around the taxation of life insurance products. The judgment was hailed by some pension consultants as a breakthrough for companies which wanted to establish pan-European funds. Mr Monti yesterday welcomed the court's decision.

Members of the pension industry believe the Commission could be content to

let the court deal with the thorny issue of taxation, especially if a planned test case on pan-European pension funds is put forward by multinational companies.

The proposed pension fund directive, which has to gain commission approval before being put to member states, is the third to tackle investment restrictions in Europe.

Mr Monti believes that such restrictions are a serious barrier to the establishment of a single market and an efficient capital market. The removal of the restrictions would end some of the barriers to equity investment in Germany, for example.

One issue to be tackled by the directive is the creation of a level playing field for different providers such as

insurance companies and pension funds.

Speaking after a two-day visit to financial institutions in London, Mr Monti said: "There should be some prudential level playing field between pensions and insurance companies and other financial institutions that provide effectively the same product." However, he said the commission would listen to all sides of the argument before drafting its proposals.

Mr Monti held out little hope that proposals for a minimum tax on European savings would be changed, despite severe criticism from investment bankers. He said alteration would lead to a lack of co-operation on other issues such as investment restrictions.

NEWS DIGEST

IONIAN BANK SELL-OFF

Bank strike brings out splits in Greek government

A sharp exchange between Theodoros Pangalos, Greece's foreign minister, and Christos Papoutsis, the country's EU commissioner, has underlined worsening divisions in the governing Socialist party over the privatisation of Ionian Bank. Several cabinet ministers have criticised the government's handling of a three-week strike by Ionian employees.

Mr Papoutsis, a member of the Socialist's central committee, said the government should not have used riot police to break up demonstrations by bank and transport workers. Many Ionian workers have defied a court ruling that the walk-out was illegal.

Mr Pangalos told a Greek television channel: "Mr Papoutsis should use his brains. If he's so anti-European in his views, what is he doing in Brussels?" Improving the banking sector's efficiency is seen as an important step in Greece's bid to achieve membership of the European single currency by 2001.

Bank union representatives resumed talks yesterday with Yannis Papantonis, economy minister, to resolve the dispute over Ionian's sale. The government says it will stick to its privatisation timetable and sell a 51 per cent stake in the bank next month. Kevin Hoyle, Athens

AEROSPATIALE

Paris to keep majority stake

The French government said yesterday that it would maintain a majority stake in Aerospatiale, the state-owned aerospace group in which it has agreed to open the capital to outside investors.

Alain Richard, defence minister, said in an interview in the newspaper Liberation that Aerospatiale could consolidate partnerships with other groups, reinforce its capital base and allow employees to become shareholders without the need for the government to become a minority shareholder.

He defended the role of the French state as shareholder in the group, without which he said that the aerospace industry would not exist. More attention should instead be given to the importance of large shareholders in determining the balance of power within the group in the future.

He indicated his support for the French defence groups Dassault and Lagardere to take stakes in Aerospatiale if they were willing.

Mr Richard also expressed confidence in the restructuring of Giat Industries, the state-owned tank and armaments manufacturer, and indicated the possibility of partnerships with other European partners by partly privatising some of its operations. Andrew Jack, Paris

SWISS FINANCIER

Fugitive flown home to trial

The fugitive financier, Werner Rey, arrived home yesterday to face fraud charges in Switzerland over the collapse of his business empire in 1991. He arrived at Zurich's international airport on a private jet from the Bahamas, accompanied by a Swiss prosecutor and two police officers, officials said. He was taken to jail in Bern.

Mr Rey had spent two years in a Nassau jail fighting Swiss efforts to bring him home, but agreed on Sunday to accept extradition and try to clear his name in a Swiss court.

Mr Rey, whose flamboyant style once shook up the Swiss business establishment, had fled to the Bahamas in early 1992 when a warrant was issued for his arrest after his Omni Holdings failed, leaving massive debts. After over two years of wrangling between legal and police authorities in the two countries, the Bahamas government approved his extradition last Thursday.

The financier faces fraud and other charges that could bring him a sentence of up to 15 years in jail if he is found guilty, legal sources say.

When Omni Holdings collapsed, it left debts of between Sfr3bn-4bn (now \$2bn-\$3bn). Reuters, Zurich

AUSTRIA'S FREEDOM PARTY

Former official arrested

A former top official of the Austrian Freedom party was arrested yesterday on embezzlement charges in connection with a financial scandal that has engulfed Europe's most successful far-right party.

Bernhard Gatzler, the former provincial chairman of the Freedom party in Lower Austria, was taken into custody after he stepped off an aircraft that brought him home from a holiday in Mauritius. He is alleged to have taken a Sfr10m (\$800,000) bank loan for his party and handed the money to Peter Rosenstingl, a fugitive parliamentary deputy who left behind at least Sfr200m in bad debt.

Mr Gatzler and other office holders from Lower Austria were kicked out of the party last month as its leader, Jörg Haider, tried to limit the political damage. But the constant revelations about financial misconduct by key party officials have taken their toll. In the latest opinion poll, the Freedom party slipped from a 26 per cent rating to 19 per cent, its worst showing in many years. Eric Frey, Vienna

TURKISH COURT

Internet user sentenced

A Turkish court gave a teenager a 10-month suspended jail sentence for using the Internet to criticise rough police treatment of a group of blind protesters, a court official said yesterday. In a landmark case, Emre Ersoz, 16, was charged with "publicly insulting state security forces" after comments he made on Turkey's online daily forum last December.

The case was the first to pit Internet users against Turkish security forces, which traditionally brook little dissent. The mainstream daily, Radikal, said Mr Ersoz signed off using his name and e-mail address, and was then reported to the police by another user. Mr Ersoz argued that his online comments could not be called public, since the site was open only to Internet users. Mr Radikal said Mr Ersoz was taking part in a debate about police treatment of a group of blind people protesting against potholes in pavements in Ankara. Reuters, Istanbul

NORWAY 'PRICE-FIXING'

Probe into ABB subsidiary

The Norwegian arm of engineering group ABB Asa Brown Boveri said yesterday it would co-operate fully with any police investigation into charges by Norway's competition watchdog of illegal price-fixing. "The competition authority has had a so-called control action since August last year and has been through thousands of documents at our offices," said ABB.

Earlier the Norwegian Competition Authority said it had reported ABB, its power unit ABB Kraft AS and Siemens to the police on suspicion that they had broken "competition laws on price co-operation, bidding co-operation and sharing out markets for deliveries of electric equipment to hydroelectric power plants".

In addition to the companies themselves, five people were reported to the Norwegian police department dealing with economic crime. Reuters, Oslo

كتاب من اجل

LOOTED GOLD SPAIN, PORTUGAL, SWEDEN AND TURKEY ALLEGED TO HAVE PLAYED CRUCIAL ROLE IN SUSTAINING NAZI WAR EFFORT

Neutrals respond coolly to US claims

By Our European staff

European countries that were neutral in the second world war gave a cool response yesterday to a US report which suggested they had played a crucial part as Switzerland in sustaining the Nazi war effort.

Spain rejected the US State Department's allegations that it had been paid for supplying war materiel to Nazi Germany with gold plundered from Jews during the war. "Spain's record was impeccable, and we stand wholly by the findings of our own commission into the matter," said Abel Matutes, the foreign minister.

Initial reports last year which linked Spain to the laundering prompted the government to appoint a team of historians, chaired by Enrique Múgica, a Jew and former justice minister, to probe the issue.

This commission told a Nazi gold conference in London in December Spain had used dollars and sterling, earned in trade with the allied powers to pay for gold it acquired from Germany. Spain's gold reserves were examined by the allies in 1945 and a number of gold bars shown to have been robbed by Nazis from the National Bank of the Netherlands were returned.

Portuguese officials said privately the Salazar wartime regime had made an important contribution to the allied effort, a fact they say was gratefully recognised by Winston Churchill. This support included the use of the Azores islands as an Allied air base as well as supplies of raw materials, including wolfram, textiles and fish preserves, similar to those Portugal supplied to Nazi Germany.

Salazar used foreign currency earnings from wartime sales to Germany to buy gold from Switzerland during the war. In the 1960s, Portugal returned more than four tonnes of gold deemed

by international agreement as the only looted Nazi gold that Portugal had received.

Earlier this year, the government created an independent commission to re-examine Portugal's role. It is due to present its findings in October. The Bank of Portugal has set up its own commission to re-examine the central bank's role.

Sweden's government indicated that any new evidence presented in the Elisenstat report would be examined by a government commission looking into the country's wartime role and the handling of Jewish assets. Foreign ministry officials in Stockholm said the commis-

sion would publish its findings later this year.

Sweden's central bank has admitted it acquired almost 60 tonnes of gold from Nazi Germany during the war. But it said it had found no evidence it was stolen from Jews by the Nazis would reconvene to examine the Elisenstat report's findings.

Mr Utkan said: "We have nothing to hide. Turkey cannot be put in the same basket as the other countries. We are very clear about this. We are not worried. The facts speak for themselves."

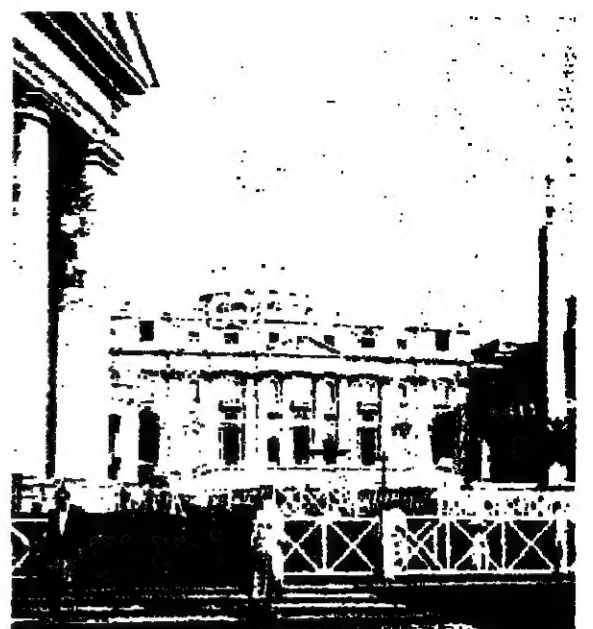
● Reports by Tom Burns in Madrid, Peter Wise in Lisbon, Tim Burt in Stockholm and John Barham in Ankara

payment for exports during the second world war.

Necati Utkan, foreign ministry spokesman, said a government committee formed to investigate previous allegations that neutral Turkey handled gold stolen from Jews by the Nazis would reconvene to examine the Elisenstat report's findings.

Mr Utkan said: "We have nothing to hide. Turkey cannot be put in the same basket as the other countries. We are very clear about this. We are not worried. The facts speak for themselves."

● Reports by Tom Burns in Madrid, Peter Wise in Lisbon, Tim Burt in Stockholm and John Barham in Ankara



St Peter's in Vatican City: the US government has called for greater openness by the Vatican

KEY MATERIALS HIGHLY LUCRATIVE TRADE

Germany's war effort funded by plunder

By Richard Wolff in Washington

After last year's damning study of the financiers behind the Nazi war machine, yesterday's report by the US State Department charts how looted gold funded the highly lucrative international trade in vital war supplies.

Across 200 pages of carefully crafted historical analysis, the US government used its own newly declassified records to examine the role of five neutral countries - Portugal, Spain, Sweden, Turkey and Argentina.

Gold plundered from central banks in occupied countries - as well as the gold and valuables stolen from concentration camp victims - were exchanged for wolfram, chrome, iron ore and ball bearings.

With the exception of Argentina, which supplied some precious metals and was a base for Nazi spies and assets, the neutral countries sustained the Nazi war effort beyond its natural life.

However, the US government acknowledged the moral complexities involved in the neutral countries' war record. Most of them accepted more Jewish refugees than the US during the war, the State Department conceded.

Nevertheless, yesterday's report concludes that the neutral countries profited from substantial trade with the Nazis even at a late stage of the war, when they could no longer claim to be under threat of a German invasion.

Many countries also profited from the allies' efforts to buy raw materials "at exorbitant prices" to stop them falling into the hands of the Nazis.

Portugal and Spain supplied almost all of Germany's supply of wolfram, used to process tungsten for steel in machine tools and arms. The US report says the trade cleared Spain's debts from its civil war and provided gold reserves until 1963. It further quotes the Portuguese government as admitting in early 1944 that ceasing exports of wolfram

would shorten the war.

Turkey supplied all of Germany's demand for chrome ore, used to harden steel. This boosted its gold reserves from 27 to 216 tons by 1945. Sweden supplied the bulk of Germany's need for iron ore to make steel, worth up to \$22m of looted gold, much of which was returned to the allies after the war.

The US government specifies that the neutral countries in Europe accepted looted gold after 1942, when it was clear that Germany had exhausted its own gold reserves and was using gold stolen from central banks in occupied countries.

Gold and valuables stolen from Holocaust victims also helped to finance the German war effort. Dresdner Bank and Deutsche Bank sold almost \$1m of victims' gold on the Turkish free market for foreign currency which funded diplomats and agents in Turkey.

As much as \$30m of other victims' gold - worth \$704m in current prices - was stolen by the Ustasha regime in Croatia from Serbian, gypsy and Jewish communities. Very little of the gold has been recovered or traced.

The US government called yesterday for greater openness in Croatia, Serbia and the Vatican, which appears to have helped Croatian war criminals to escape after the war.

The report singles out Switzerland for particular encouragement for "conducting the most searching national debate" of its own past. It also praises the Vatican for publishing its statement on the "painful subject" of the Holocaust earlier this year.

In his foreword to yesterday's report, Stuart Eizenstat, US under-secretary of state leading the investigation into Nazi gold, called for further support for the surviving Holocaust victims.

"The goal of all this work is to help people while they are still alive," he said. "Time is running out for this belated justice to make a difference as ageing Holocaust survivors die every week and every month. We must not wait any longer to act."

Europe pressed on environment

By Leyla Bouillon, Environment Correspondent

European environment ministers will be told later this month that they must do more to ensure their environmental policies in fact help the environment.

A report by the Copenhagen-based European Environment Agency says just one out of 12 problem areas - the risk of industrial and other accidents - has improved over the past five years.

Derek Osborn, agency chairman, said: "Countries like to say that things are getting better. But the message is that we've got to redouble our efforts. We've done a lot but not enough."

The report is intended to stiffen respect for the environment as the European Union takes on new members from the former east bloc. It will be submitted on June 23 to an unprecedented gathering of environment ministers from both eastern and western Europe in Aarhus, Denmark.

The 44-country survey shows:

● Greenhouse gas emissions associated with climate change have fallen 3 per cent in western Europe and 19 per cent in the east only thanks to the UK's switch to gas-fired power stations and economic problems in eastern Europe.

● Sulphur emissions which cause "acid rain" fell 50 per cent between 1980 and 1995. But summertime smogs and particulate pollution from vehicles mean air pollution remains a serious problem, particularly in southern Europe.

● Nature conservation measures in the west are failing to stop a decline in protected species under threat from intensive agriculture and economic development.

● The volume of rubbish produced in Europe is rising steadily.

An important challenge for the agency is to stop governments from sitting on embarrassing data. A chart showing country-by-country reductions in lead emissions from petrol is incomplete partly because Ireland asked for its data to be removed, Mr Osborn said.

Merging Swiss banks may leave New York

By John Authers in New York and William Hall in Zurich

UBS and Swiss Bank Corporation are considering basing their US operations outside New York because of the threat that the state banking authorities will block their planned merger after political pressure over Holocaust victims' dormant accounts.

The banks need clearance from the New York Banking Commission before they can open an operation for the merged entity, to be known as UBS, in New York. But the commission, which meets once a month, has not yet even decided whether the merger will be on the agenda for its next meeting, due tomorrow.

UBS and SBC, which

announced plans to merge last December, are eager to complete the deal by the end of this month. If it is delayed beyond then the two banks will be forced to issue separate profit statements and balance sheets for the six months to end June.

Gertrud Eismann, UBS's head of public affairs, said this would "show a wrong picture" of the positions of

the two banks. UBS had transferred much of its securities business to SBC, but was still carrying the costs in its own books.

UBS said it would reconsider its position after the meeting tomorrow. "We cannot wait for another half-year," said Mrs Eismann, who did not rule out the possibility that the group would move its business activities

to the neighbouring state of Connecticut, where Swiss Bank Corporation has recently opened its new trading floor.

The New York State Banking Department announced in March it officially opposed the merger. It was backed by George Pataki, state governor, who appoints most commission members, and Alfonso d'Amato, chairman

of the Senate banking committee.

Elizabeth McCaul, the acting banking superintendent for New York, said: "I do not believe that the proposed merger should be approved unless and until both SBC and UBS give the deposits back to their rightful owners and heirs."

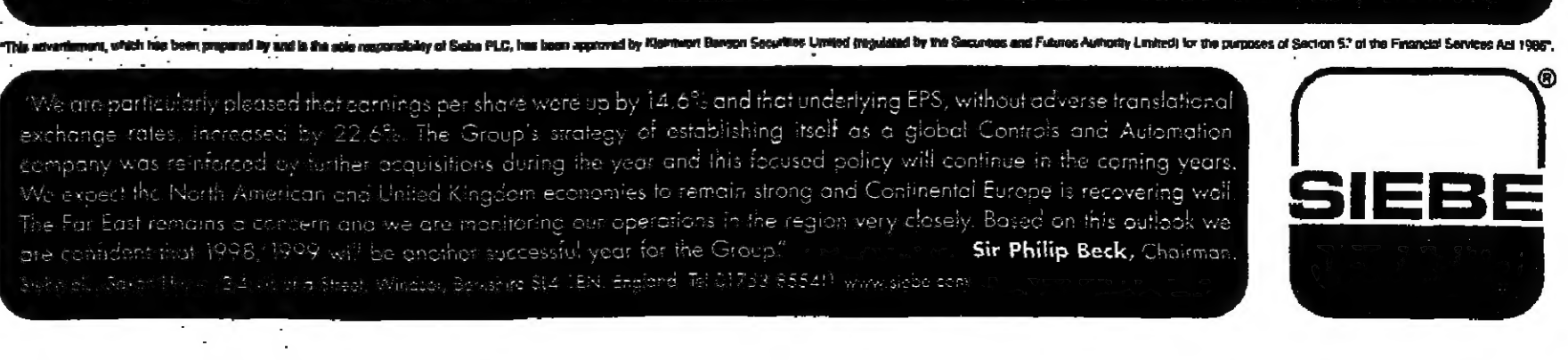
This process is likely to take many more months.



If you invest

Siebe's record profits are certainly worth a closer look.

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	1998	1997	% change
Turnover (£m)	3,670.2	3,005.3	up 22.1%
Pre-tax Profit (£m)	486.4	424.1	up 14.7%
Earnings per Share (pence)	62.0	54.1	up 14.6%
Dividend per Share (pence)	16.2	14.7	up 10.2%



"We are particularly pleased that earnings per share were up by 14.6% and that underlying EPS, without adverse translational exchange rates, increased by 22.6%. The Group's strategy of establishing itself as a global Controls and Automation company was reinforced by further acquisitions during the year and this focused policy will continue in the coming years. We expect the North American and United Kingdom economies to remain strong and Continental Europe is recovering well. The Far East remains a concern and we are monitoring our operations in the region very closely. Based on this outlook we are confident that 1998/1999 will be another successful year for the Group."

Sir Philip Beck, Chairman

SIEBE

ASIA-PACIFIC

ECONOMY GROWTH ESTIMATES DOWN, UNEMPLOYMENT AND INFLATION UP

Indonesia forecasts slashed

By Gwen Robinson and Sander Theunissen in Jakarta

New figures on the Indonesian economy have confirmed fears that political upheavals leading to the resignation last month of former President Suharto accelerated the country's economic tailspin.

Bleak first-quarter figures on unemployment and inflation and a rapid contraction in gross domestic product yesterday forced economists to slash forecasts for the year.

The news came as the Indonesian rupiah continued its slide, reaching 11,500 to the dollar yesterday, and international creditor banks entered their second day of talks in Frankfurt with Indonesian officials on rescheduling the country's private debt, estimated at more than \$80bn. Resolution of the debt issue is critical to Indonesia's economic restructuring efforts. So far, however, the two sides have been unable to agree on a formula.

Gibranjar Kartasasmita,

co-ordinating minister for economics, finance and industry, said yesterday that negotiators would first try to reach an agreement on resumption of trade financing by international banks, in return for settlement of more than \$500m in arrears of commercial banks, debt which has been guaranteed by the government.

Economists said one of the few positive economic developments was the move by B.J. Habibie, the new president, to appoint a team of three senior economic advisers.

Two of the three economists, Wijoyo Nitiasastro and Ali Wardhana, were advisers to Mr Suharto but were widely respected for their role in the country's earlier economic development. Both men opposed Mr Suharto's currency board proposal late last year to peg the rupiah to the US dollar and were largely ignored by the former president in recent years. The third adviser, Frans Seda, was a cautious critic after leaving his post

as finance minister in the 1970s.

The government said yesterday that unemployment this year would reach 15.4m, about 17 per cent of Indonesia's workforce of 90m, on the likelihood of further corporate failures. Gross domestic product contracted 0.21 per cent in the first quarter compared with the same period last year and is likely to contract by more than 10 per cent in 1998, exceeding earlier forecasts of 4 per cent, the bureau of statistics said.

Monthly inflation in May was 5.24 per cent, bringing year-on-year inflation to about 52 per cent.

Meanwhile, the International Monetary Fund said Indonesia could return soon to its economic reform programme, which is linked to the IMF-sponsored \$400m rescue package. Stefan Fischer, the Fund's Asia-Pacific director, told a symposium in Tokyo that an IMF mission would return to Jakarta in the next few days to resume discussion on a review of the programme.



Fischer: IMF may be able to resume disbursement of funds 'reasonably soon'

Jobs go as China revamps railways

By James Kyngie in Beijing

China is to embark on an ambitious plan to reverse the structural decline of its vast but creaking railway network by slashing jobs, reducing losses and raising capital expenditure.

Fu Zhizhen, the new railway minister, said 850,000 jobs were to be cut by 2000 as part of a drive to reduce accumulated operating losses of RMB16bn (£1.1bn).

This year the railways aim to reduce losses to RMB1.2bn (£88m) from RMB4bn last year but whether this can be achieved as the economy slows is "something that keeps me awake at night", Mr Fu said. The railways plan to break even in 2000, he added.

The railway system overhaul and job cuts are part of a reform programme set out by Zhu Rongji, the premier. Unemployment, in the estimation of some economists, is set to become China's most serious problem over the next few years and could threaten social stability.

Hu Angang, a leading independent Chinese economist, estimates that up to 13m people, or 6 per cent of the workforce, were unemployed last year - the highest rate since the Communist revolution in 1949. Official figures are significantly lower.

Much foreign investment will be needed to turn the railways around, said Mr Fu. The ministry hopes that its plan to spend RMB290bn (£18.5bn) to lay 5,340km of rail over the next five years and RMB100bn (£7.4bn) on locomotives and equipment procurement will induce more foreign companies to invest in China's rail and rolling stock sector.

China has in the past ruled out allowing foreign companies to operate railways, but Mr Fu said that allowing foreigners to enter build-operate-transfer agreements was now a possibility.

HK plan to prevent further Asian crises

By Edward Luce in London

Hong Kong has put forward a proposal to create an international lender of last resort to help prevent recurrence of "sovereign liquidity" crises such as those in Asia.

The proposal, outlined by Joseph Yam, chief executive of the Hong Kong Monetary Authority, in London yesterday, follows widespread criticism of the international community's failure to anticipate the scale of the Asian financial crisis last year.

It also comes as the international financial community, including the Group of Seven main industrialised countries and the International Monetary Fund, are looking at ways to improve "financial architecture" to cope better with such crises.

"People everywhere

think there is a strong need for an international lender of last resort to prevent liquidity problems turning into solvency problems."

The plan, put to governments and international bodies, is the first concrete proposal from an Asian country since Japan proposed creation of an Asian Monetary Fund last year. Japan's plan was marginalised after objections from the US and others.

Under Hong Kong's proposal, the World Bank and other multilateral institutions, such as the Asian Development Bank, would step up issuance of bonds.

These would be bought by

central banks with high foreign exchange reserves such as the US, Japan and Hong Kong. Proceeds would be lent to economies with temporary liquidity problems.

In turn, the World Bank would assume all credit risk associated with lending to the troubled economies. It would in effect act as a central bank to national central banks. It would also raise extra capital for its new role from global bond markets.

"If Hong Kong had been asked to provide liquidity to Indonesia last year we might not have been very happy about the credit risk," said Mr Yam. "But if the World Bank had asked us for the money we would have been very happy to provide it."

Mr Yam said the IMF would continue to step in to prevent insolvency of sovereign countries and would continue to impose conditions in exchange for such rescue packages.

But there would be a more equitable distribution of costs between lender and borrower under IMF rescue packages to minimise "moral hazard" (where lenders know in advance they will be bailed out of bad lending decisions). Mr Yam said there was a "growing consensus" to set up an arrangement along these lines.

Japan to spend on jobs

By Michiko Nakamoto in Tokyo

Japan yesterday announced plans to deal with the sharp rise in unemployment, which hit a record in April of 4.1 per cent. The measures were agreed at a special cabinet unemployment committee, which met for the first time in two years.

The convening of the committee underlines the growing concern within the government over the sharp rise in people out of work and reflects government efforts to take the initiative in dealing with unemployment before upper house elections in July.

The ruling Liberal Democratic party has been keen to build spending on public works as a means of winning the support of the construction industry, which employs about 10 per cent of the Japanese workforce.

Among the short-term measures agreed, the government will bring forward

spending on public works projects, in particular in four regions where unemployment in the first quarter was higher than the national average.

The government will also promote jobs for older workers, disadvantaged by Japanese companies' employment patterns. Public financial support given to companies employing workers over 55 will be extended to cover companies that employ workers over 45.

Troubled industries will also be given financial support to maintain employment. Under Japan's system of national unemployment insurance, corporations in industries that face severe economic difficulties are paid to maintain employment out of insurance premiums.

Koji Omi, head of the Economic Planning Agency, forecast yesterday that the already announced

¥18,000bn (\$116bn) stimulus package, which is focused on public works spending, will create at least 300,000 jobs and push gross domestic product up 3 per cent.

Japan yesterday indicated it was ready to mediate between India and Pakistan in their dispute over Kashmir in an effort to prevent the escalation of nuclear weapons development by the two. Keizo Obuchi, Japan's foreign minister, said: "We are happy if Tokyo can serve as the venue [of an international conference] where efforts will be made for a peaceful resolution."

There was no response from the Pakistani authorities to Japan's move. India is likely to resist fiercely any attempt to "internationalise" Kashmir, over which the South Asian rivals have fought two of three post-independence wars.

Editorial comment: Downed in depression? Page 13

This notice is important and requires your immediate attention. If you are in any doubt about the action you should take you should consult immediately your stockbroker, bank manager, solicitor, accountant or other professional adviser authorised under the Financial Services Act 1986.

US\$150,000,000 Floating Rate Capital Notes due 2001

issued by

BARINGS BV

(In liquidation in The Netherlands)

In January and October 1986

guaranteed by

BARINGS PLC

(In liquidation in England)

NOTICE IS HEREBY GIVEN that a meeting (the "1986 Noteholders Meeting") of the holders of the above-mentioned notes (the "1986 Notes") is convened for the purpose of considering and, if thought fit, approving modifications to the terms of the 1986 Notes and the 1986 Trust Deed (as defined in the Circular referred to below) to implement the Proposals (as defined and described in the Circular). The Proposals relate to a proposed scheme of arrangement between, among others, Baring PLC (the guarantor of the 1986 Notes) and the 1986 Trustee (as defined in the Circular). The terms of the extraordinary resolution to be proposed at the 1986 Noteholders Meeting are set out in full in the Circular. The 1986 Noteholders Meeting will be held at 2.00 p.m. on 6th July, 1998 at The Insurance Hall, 20 Aldermanbury, London EC2V 7HY (or, if later, on the conclusion of the preceding meeting convened for that day referred to in a circular dated 2nd June, 1998 (the "Circular") detailing the Proposals).

Circulars will be distributed through Euroclear and Cedel Bank. Persons with an interest in 1986 Notes held outside Euroclear and Cedel Bank may obtain a Circular by telephoning Ernst & Young (Stephen Harris or Vivienne Oliver) on telephone number 0171 931 4327 or 0171 931 3120 during normal working hours.

This notice is issued pursuant to the provisions of the 1986 Trust Deed. A summary of the arrangements which have been made for the purpose of voting in respect of the extraordinary resolution is set out below.

If the extraordinary resolution is passed, the rights of the holders of the 1986 Notes may be fundamentally altered.

VOTING ARRANGEMENTS

The following is a summary of the arrangements which have been made for the purpose of voting in respect of the extraordinary resolution to be proposed at the 1986 Noteholders Meeting. These arrangements satisfy the requirements of the provisions contained in the 1986 Trust Deed relating to meetings of holders of 1986 Notes convened for the purpose of passing an extraordinary resolution. Full details of these arrangements, and the action to be taken by investors in 1986 Notes, are set out in the Circular.

The 1986 Notes are in bearer definitive form. A holder of 1986 Notes for the purpose of the 1986 Noteholders Meeting is a person who is a bearer of a 1986 Note. Where 1986 Notes are held through clearing systems operated by Euroclear or Cedel Bank, the holders of those 1986 Notes for the purpose of the 1986 Noteholders Meeting are the depositaries who hold those definitive 1986 Notes in safe keeping for Euroclear and Cedel Bank. Investors in 1986 Notes who hold their interest in 1986 Notes through Euroclear or Cedel Bank should convey their instructions to their Account Holder as described below.

1. Completing a Voting Instruction Form:

Votes attributable to 1986 Notes may be cast either by attending and voting at the 1986 Noteholders Meeting (or by appointing someone else to do the same) or by instructing the votes to be cast in a specified manner in your absence. The Circular is accompanied by a Voting Instruction Form. Investors in 1986 Notes should complete this form to elect whether to:

- attend and vote at the 1986 Noteholders Meeting (or appoint someone else to do the same), in which case the person attending the 1986 Noteholders Meeting must complete and submit a Voting Instruction Form to apply for a Voting Certificate as described in 2 below; or
- instruct a Paying Agent (as defined below) to arrange for the votes attributable to the relevant interest in 1986 Notes to be cast in a specified manner in their absence, in which case the person giving the instructions must complete and submit a Voting Instruction Form for inclusion in a Block Voting Instruction as described in 3 below.

Voting Instruction Forms should be completed and submitted as described below in sufficient time for Account Holders to forward details of them to Euroclear or Cedel Bank (as appropriate) by close of business (local time) on 30th June, 1998.

2. Attending to vote in person:

If you wish to attend and vote at the 1986 Noteholders Meeting in person, or to nominate and appoint another person to attend and vote at the meeting in person on your behalf, you must produce at the 1986 Noteholders Meeting a Voting Certificate which has been issued by one of the paying agents for the 1986 Notes (the "Paying Agents") in respect of the 1986 Notes on which you wish to vote.

To obtain a Voting Certificate from a Paying Agent, you must complete the relevant section of your Voting Instruction Form, and submit it to your Account Holder, who will forward the details of your instructions to Euroclear or Cedel Bank as appropriate. (Alternatively, if the 1986 Notes in which you have an interest are not held through Euroclear or Cedel Bank, you should submit the completed Voting Instruction Form to a Paying Agent together with your definitive 1986 Notes.) In all cases the relevant 1986 Notes must be deposited or held with or to the order of a Paying Agent not later than 48 hours before the time appointed for the 1986 Noteholders Meeting. Where 1986 Notes are held through Euroclear or Cedel Bank, Euroclear or Cedel Bank (as appropriate) will (if instructed) arrange for this to be done.

The Paying Agent will then issue a Voting Certificate to the person specified in the instructions contained in your Voting Instruction Form. The bearer of the Voting Certificate is entitled to attend and vote at the 1986 Noteholders Meeting in respect of the 1986 Notes represented by that Voting Certificate. Voting Certificates will be valid until the relevant 1986 Notes are released by the Paying Agent and until then the bearer of any Voting Certificate will, for all purposes in connection with the 1986 Noteholders Meeting, be deemed to be the holder of the 1986 Notes to which the Voting Certificate relates.

If the 1986 Notes in which you have an interest are not held through Euroclear or Cedel Bank, you can either apply for a Voting Certificate by completing and submitting a Voting Instruction Form as described above, or you can produce at the 1986 Noteholders Meeting the definitive 1986 Notes themselves. In this case, you would not need to complete a Voting Instruction Form or apply for a Voting Certificate.

3. Arranging for votes to be cast in your absence:

If you are entitled but do not wish to attend and vote at the 1986 Noteholders Meeting or to nominate and appoint someone else to attend and vote at the 1986 Noteholders Meeting on your behalf, you may instruct a Paying Agent to arrange for the votes attributable to any 1986 Notes in which you have an interest to be cast in a particular way, by instructing that Paying Agent to include those instructions in a Block Voting Instruction issued by that Paying Agent.

To apply to include your instructions in a Block Voting Instruction issued by a Paying Agent, you must complete the relevant section of your Voting Instruction Form and submit it to the Account Holder with Euroclear or Cedel Bank as appropriate. (Alternatively, if the 1986 Notes in which you have an interest are not held through Euroclear or Cedel Bank, you should submit the completed Voting Instruction Form to a Paying Agent together with your definitive 1986 Notes.) In all cases, the relevant 1986 Notes must be deposited with or to the order of a Paying Agent not later than 48 hours before the time appointed for the 1986 Noteholders Meeting. Where 1986 Notes are held through Euroclear or Cedel Bank, Euroclear or Cedel Bank (as appropriate) will (if instructed) arrange for this to be done. The Block Voting Instruction issued by the Paying Agent will set out in aggregate how many votes are to be cast in favour of, and how many against, the extraordinary resolution and will appoint the chairman of the 1986 Noteholders Meeting to vote at the 1986 Noteholders Meeting in accordance with those instructions. Block Voting Instructions will be valid until the 1986 Notes are released by the Paying Agent and until then the chairman (as the proxy named in each Block Voting Instruction) will, for all purposes in connection with the 1986 Noteholders Meeting, be deemed to be the holder of the 1986 Notes to which the Block Voting Instructions relate.

M. E. Mills
joint liquidator of Barings PLC
as agent and without personal liability
2nd June, 1998

Principal Paying Agent:
Kreditbank S.A. Luxembourg, 43 Boulevard Royal, L-2955 Luxembourg,
Attn: Martine Lockman
Tel: (352) 4797 5215 Fax: (352) 4797 5270 Telex: 3418 KBLUX LU

Paying Agents:
Kreditbank N.V., 7 Rue d'Arenberg,
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Telex: 21207
Credit Suisse First Boston, 8 Paradeplatz,
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Tel: (411) 33 5269 Fax: (411) 33 4979
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India's budget: a bold dash forward or retreat to the 'Hindu rate of growth'?

Tax and spend divides business, writes Krishna Guha

Yashwant Sinha, India's finance minister, staked his government's fortunes on a dash for growth this week with a tax-and-spend budget, which included a big increase in public investment paid for by higher tariffs and excise duties.

However, India's business community was divided over whether it has the right formula to reverse the fall in growth from 7 per cent to 5 per cent last year.

"Retreat from the World," declared an editorial in India's Economic Times, which said the budget "marks discontinuity with the process of integration with the global economy initiated in 1991".

Most industrialists welcomed higher public investment. "Spending on infrastructure and housing will help increase demand," said S. D. Kulkarni, managing director of Larsen and Toubro, a construction group. The initial benefit would go to industries such as cement and steel. But Mr Kulkarni said consumer industries would ultimately benefit from higher growth.

"Higher spending will also create income and have a multiplier effect," he said.

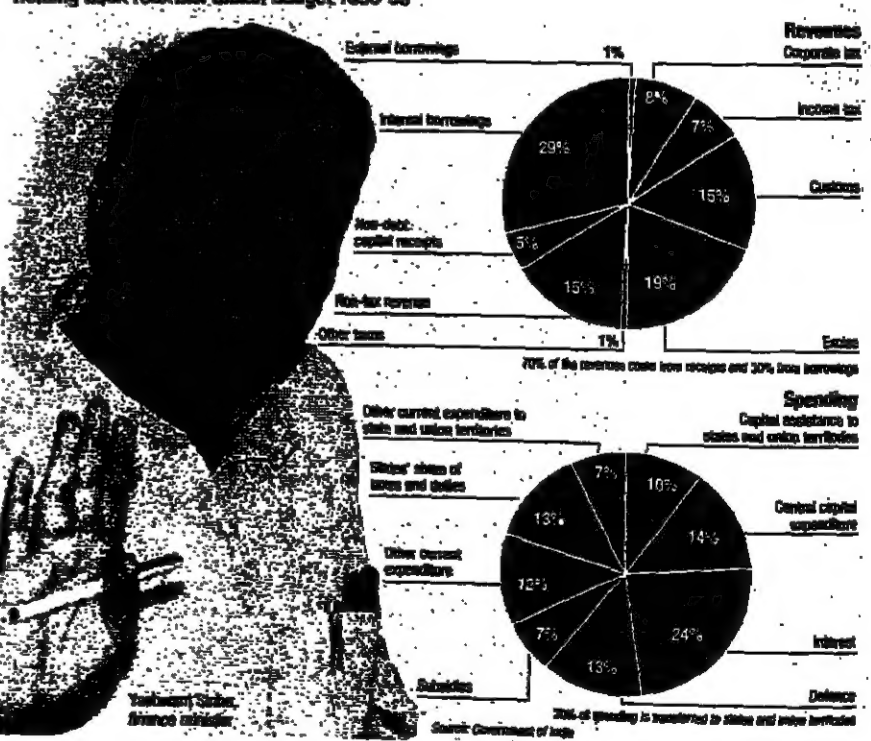
However, some industrialists said spending on infrastructure might not deliver higher growth. "An insipid budget," said Shekhar Datta, president of Greaves, a manufacturing company. "I do not think this is going to promote economic growth."

He said the budget had done nothing to boost the sectors which powered India's expansion in the mid-1980s - the automobile sector, the consumer goods sector, mining and services.

These industries will be hit by higher input costs as a result of tariff rises and the imposition of excise duty on branded food products, tea and chocolates.

Industrialists agree, however, that the acid test of Mr Sinha's budget will be the extent to which public investment triggers a virtuous cycle of private investment - which could fuel

Holding back reforms: Indian budget 1998-99



growth and spread benefits of higher spending across the economy.

If private investment does not take off, higher public spending will simply provide a transfusion of public money to commodity industries - with little impact on growth.

Rajesh Shah, president of the Confederation of Indian Industry, said the budget was only a "beginning". The government should match higher spending with legislative reforms, including of the power sector, if it was to deliver growth, he said.

He said moves to reform India's land laws and currency regulation, open up insurance and lighten the grip of the "inspector raj" were encouraging. Confidence, though, was fragile.

New private investment may be constrained by existing overcapacity. Industries such as cement can absorb higher demand without putting up new plants. "There is certainly overcapacity," said Mr Kulkarni. But he said investment would pick up once existing supply was fully utilised.

Economists said higher public spending would provide at least a modest fillip

to growth in core industries this year - and a bigger boost to profits. But there is alarm at the price India will pay - a new 6 per cent tax on most imports and other indirect tax rises, which will spur inflation and undermine competitiveness.

"Mr Sinha's budget is a landmark one: it declares that we have returned to the normal Indian political game," said Ashok Desai, an economist. The budget displayed a worrying tendency to tinker with tariffs to help favoured industries - at best "picking winners", at worst bailing out influential dinosaurs, he said.

Kumar Mangalam Birla, chairman of the Aditya Birla group, said the new duty gives Indian industry the breathing space it requires in order to meet the challenges of globalisation.

But others said the duty would make it harder to adapt to global prices and compete in exports. "It will make Indian companies lethargic and complacent," said Anil Singhvi, treasurer at Gujarat Ambuja Cement. India's central bank is rumoured to share these concerns, and favour treat-

ing the new tax as a "temporary" measure, to be withdrawn once capacity utilisation improves.

There are fears that the new taxes may not bring in projected revenues - particularly if growth does not pick up. The budget estimate of a fiscal deficit of 6.8 per cent assumes 6.5 per cent growth.

Some bankers worry that new tariffs also send out the wrong signals. "There is nothing in the budget that encourages foreign direct investment," said Deepak Parekh, chairman of HDFC, a housing bank. Lower inflows could put pressure on the rupee, which has sunk to successive lows against the US dollar in recent days. But Mr Sinha believes inflows will rise - boosted by infrastructure projects and funds from the non-resident Indian community.

"Hello Hindu Rate of Growth," said Sunil Bhalla, an economist. Rakesh Mohan, director general of Delhi's National Council of Applied Economic Research, was equally damning: "I don't expect the economy to go any place interesting in the foreseeable future."

to prevent Asian crises

There is a strong view among international leaders that the best way to prevent financial crises in Asia is to prevent them from turning into a global crisis.

The IMF has been particularly vocal in this regard, calling for a "pre-emptive" approach to prevent crises from spreading.

The IMF's plan is to provide a "pre-emptive" approach to prevent crises from spreading. The IMF's plan is to provide a "pre-emptive" approach to prevent crises from spreading.

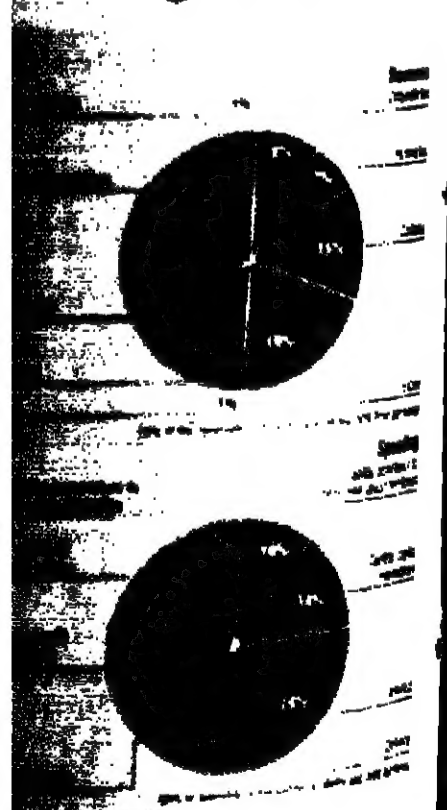
pend on jobs

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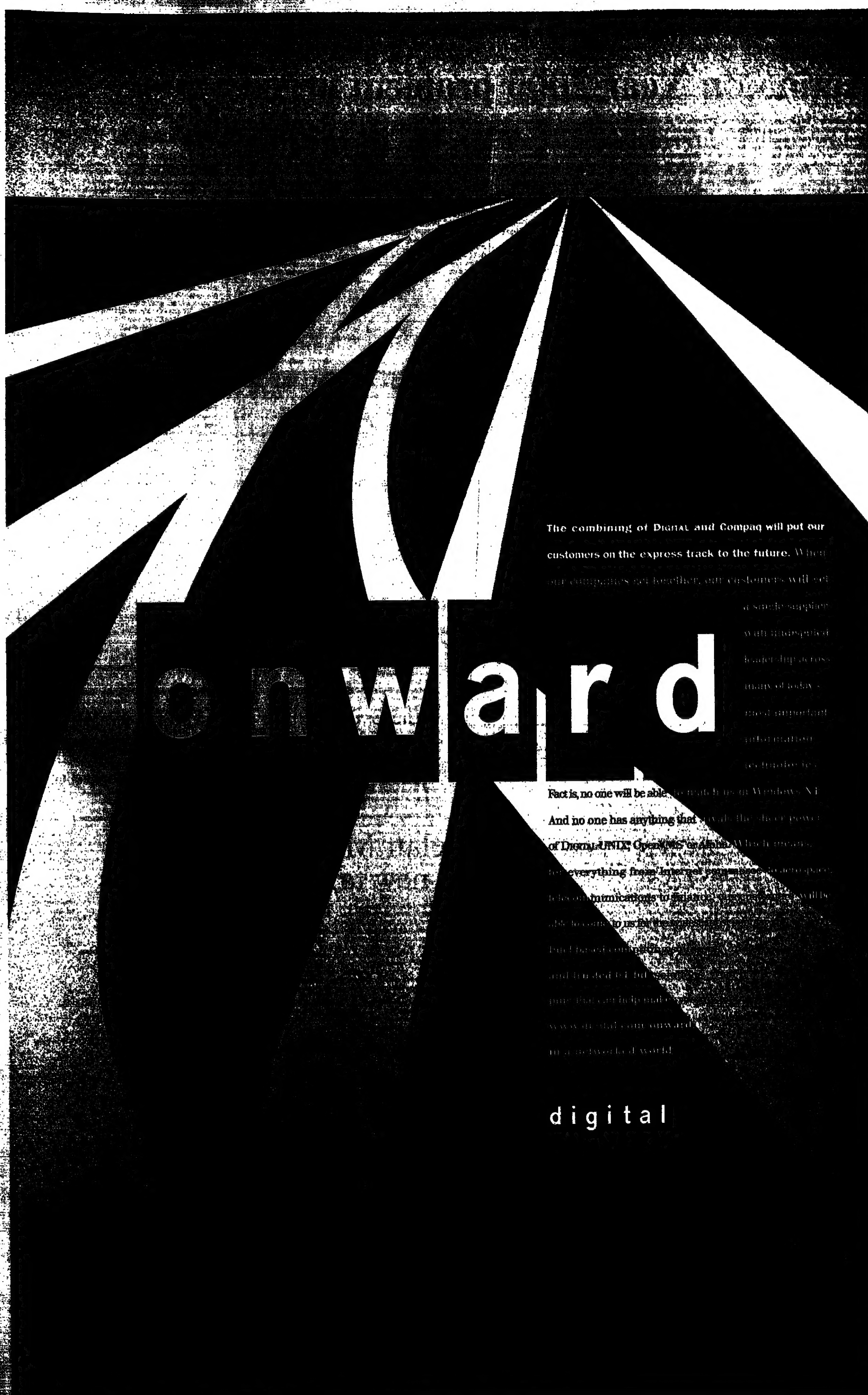
ash forward or e of growth?



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THE AMERICAS

MILLENNIUM BOMB CONGRESSMEN AND INDUSTRY CALL ON WHITE HOUSE TO PLAY BIGGER ROLE IN RAISING BUSINESS AWARENESS

Action on Year 2000 problem urged

By Mark Swanson in Washington

Leading congressmen and industry analysts yesterday called on the White House to take a more active role in combating the Year 2000 computer problem.

Releasing a graded assessment of steps taken by 24 federal agencies to solve the problem, Stephen Horn, chairman of a congressional subcommittee on government management, warned that the overall rate of progress was actually slowing. He said at least six federal agencies, including the

Defense and Transportation departments, were unlikely to fix their computer systems in time.

"It is time for the president to provide a wake-up call and designate the Year 2000 problem as a national priority," Mr. Horn said. "He's got to... inform the people of this nation that this is a problem."

The difficulty arises from the fact that many computer systems only use two-digit date systems. That makes it impossible for them to recognise whether "00" is 2000 or 1900, so possibly creating

serious problems for everything from air traffic control to the banking system.

The report followed an announcement by John Koskinen, chairman of a presidential council looking at the problem, that the Justice Department plans to tell businesses that co-operation to address Year 2000 issues will be exempted from anti-trust laws.

Many companies have been reluctant to share strategies for dealing with the issue for fear it would be seen as illegal collusion. However, there are still

serious concerns that many public companies are not making full disclosure about the potential effects of the problem on their business activities despite new guidance from the Securities and Exchange Commission requiring them to make formal reports on the matter.

Speaking at a conference on Year 2000 problems at the Centre for Strategic and International Studies, an independent think tank, Edward Yardeni, chief economist at Deutsche Morgan Grenfell, warned that the vast majority of companies

had failed to provide comprehensive information on their progress in dealing with Year 2000 problems in their most recent SEC filings. "Most companies have interpreted this guidance very narrowly," he said.

Bob Bennett, Utah Senator, said he would hold a special congressional hearing later this month on the poor rate of corporate compliance with the new guidance and also called on Mr. Clinton and Vice-President Al Gore to be more directly involved in raising public awareness about the prob-

lem. "We seem to be having some difficulty getting their attention," he said.

Underlining the growing concern about the consequences of inadequate action, a new survey of the Washington DC Year 2000 group, an organisation of over 1,000 professionals from government and industry working directly on the problem, found that 70 per cent of respondents believed it would cause an economic slowdown. Over a third expected a deep recession and 10 per cent predicted a depression or worse.

MEXICAN PRIVATISATION RODRIGUEZ SAEZ'S CAPTURE IN SPAIN RECALLS SUPERVISION CONTROVERSY AFTER BANK SELL-OFFS

Fugitive banker extradited to face Banpaís charges

By Leslie Crawford in Mexico City

Angel Rodríguez Saez, the fugitive Mexican banker who allegedly left a \$3bn hole in Banpaís, the country's eighth largest bank, was extradited from Spain this week to face trial on charges of fraud and embezzlement in Mexico.

Banpaís was the first bank to collapse during Mexico's financial crisis. When central bankers intervened in March 1995, they uncovered multi-million-peso credits to companies owned by Mr. Rodríguez Saez, and fraud at Mexival, the brokerage owned by Banpaís.

Mr. Rodríguez Saez, known as *El Divino* ("divine") for his good looks, fled Mexico in 1996. Interpol caught up with him in Ibiza, fishing him out of the Mediterranean when he dived off his yacht in a final attempt to evade his pursuers.

After fighting extradition for two years, he was deported in handcuffs from Spain on Monday. On his arrival in Mexico City, his lawyers obtained an injunction to prevent his immediate arrest. He is due soon to appear before a judge who will either set bail or send him to jail to await trial.

The son of a transport magnate, and a wealthy patron of the ruling Institutional Revolutionary party (PRI), Mr. Rodríguez Saez is alleged to have used frontmen to buy Banpaís when it was privatised in 1991. During his brief tenure as chairman and president of Banpaís, he is alleged to have raided the bank's coffers for personal benefit. Mexican prosecutors say he borrowed \$49m from one of the bank's subsidiaries in the Cayman Islands without telling bank supervisors or tax authorities.

He is alleged to have bought Asencor, a big state-

owned insurance company, with Banpaís funds. According to court documents, he also financed at least two of his personal business ventures, Mexival Trading and Aero Transportación Comercial, with soft loans from his bank.

"Mr. Rodríguez Saez used his position at Banpaís to authorise credits to companies in which he was a shareholder in the knowledge that these companies had neither the financial structure nor the economic

Bankers did not have to declare the generous loans they gave themselves

capability to repay the loans," the attorney-general's office said.

The collapse of Banpaís was followed by other bank failures, which exposed serious deficiencies in the way banks had been supervised following privatisation. Bankers were not required to declare the generous loans they granted to themselves or to their business associates. There was no attempt to curb the explosion of credit which followed privatisation.

In addition to lax supervision, critics of Mexico's bank privatisations blame the government for failing to screen buyers properly. A total of 18 banks were sold in 1991 and 1992 to the highest bidders, who often had little or no experience in running financial institutions. The privatisations netted \$12.4bn, but the cost of rescuing insolvent banks in the wake of the peso crisis has risen to \$65bn, or 14.5 per cent of 1997 gross domestic product.

Mr. Rodríguez Saez is not the only Mexican banker charged with fraud. Carlos Cabal Peniche, another businessman with political connections, allegedly plundered Unión and Creml after acquiring the banks from the government in 1991. Regulators say Mr. Cabal Peniche left a paper trail of fraudulent transactions when he left Mexico, in some haste, in late 1994. He has been a fugitive ever since.

Jorge Lankenau, chairman and chief executive of Banca Confía, was placed under house arrest in October when banking authorities accused him of disguising more than \$2bn of losses at his bank through suspicious fund transfers between Confía (which means "trust" in Spanish), its brokerage house and offshore companies. He absconded from his home in Monterrey, evading a security cordon of 24 police officers, but turned himself in after a few days. He is awaiting trial in prison.

Confía was one of three Mexican banks indicted two weeks ago in the US on charges of laundering money for Mexican drug cartels. The fraud and money-laundering scandals have led Congress to hold up a government request to raise public debt by \$65bn to pay for the banking bail-out.

Opposition congressmen, who control the Chamber of Deputies, suspect the pattern of fraud and plunder within Mexico's privatised banks was more widespread than bank regulators have been willing to admit. They believe bankers were shielded from scrutiny when a central bank trust took over billions of dollars of bad loans to clean the balance sheets of ailing banks. And they say not a peso of taxpayers' money will be authorised until Congress has examined every detail of the rescue operation.



Jerry Brown, former California governor and current Oakland mayoral hopeful, just before voting yesterday in a race he was heavily tipped to win against 10 other candidates. Reuters

Both parties backing their most moderate candidates

Voters in eight states were picking candidates yesterday in primary races on the busiest election day in the US so far this year, AP reports.

Californians were choosing candidates for governor and US Senate and settling the fate of two far-reaching ballot initiatives. One would require unions to get members' permission to spend dues on politics; the other seeks to ban bilingual education.

The primaries in California and throughout the US could also prove critical to who controls the House next year; Republican and Democratic

leaders alike were rooting for their most moderate candidates.

In Alabama, Governor Fob James was in a five-way Republican race as he sought the nomination for another term, and needed to get a majority of the vote to avoid a troubling run-off. Republicans worried that no matter who won, their hold on the seat would have been weakened by a bloody primary.

The Democrats' internal battles were given voice in the Mississippi Delta district served by retiring Republican Mike Parker. Many party

leaders hoped a moderate, Ronnie Shows, could avoid a run-off with either of two more liberal opponents.

In California Gray Davis surged ahead in pre-election polls in a Democratic gubernatorial race that set records for spending. His traditional campaign had been overshadowed by the self-financed efforts of a former airline executive, Al Checchi, and Jane Harman, both multi-millionaires.

Other elections were being fought in Iowa, New Jersey, New Mexico, South Dakota and Montana.

Venezuelan MPs may approve new tax soon

By Raymond Collin in Caracas

The Venezuelan parliament may soon approve a law to introduce a value-added tax (IVA) instead of a government-proposed reform of wholesale tax as part of a drive to cut widespread tax evasion.

Congressional leaders also hope the tax reforms will boost the country's non-oil revenues.

Gustavo Tarre Briceño, head of the congressional finance committee, said there was sufficient consensus to have the legislation approved before July 31, when Congress breaks for a long recess before December's presidential elections.

His administration last month proposed raising the IVA to 16 per cent and broadening the tax base by lowering the threshold of taxable sales in an attempt to help plug a gaping budget deficit.

Critics say the government's tax authority, Seniat,

per cent IVCSM tax.

Jorge Roig, a parliamentarian of the leftwing Causa Radical party, proposed a 10 per cent IVA rate with the option for regional governments to levy as much as 3.5 per cent in addition.

"This scheme not only reduces tax evasion, it would also introduce competition between states to attract business," said Mr. Roig.

President Rafael Caldera abolished the IVA upon taking office in 1994, considering it to be an excessive burden on consumers.

It was replaced with a wholesale tax, whose burden it was thought would be carried mostly by business.

His administration last month proposed raising the IVA to 16 per cent and broadening the tax base by lowering the threshold of taxable sales in an attempt to help plug a gaping budget deficit.

Critics say the government's tax authority, Seniat,

has been unable to boost non-oil revenues significantly in real, or inflation-adjusted, terms.

According to Gustavo García, head of economic research at Congress, Seniat collected 4.3 per cent of gross domestic product in tax with a 12.5 per cent IVCSM rate in 1995 and only 4.2 per cent of GDP with a 16.5 per cent IVCSM rate in 1997.

At that level, says Mr. Roig, the tax "should be raising approximately 8 per cent of GDP".

The government cut expenditures by \$1.7bn following a drop in oil prices which led to a revenue shortfall of \$4.6bn in the 1996 budget.

Industry leaders last month said the elimination of IVCSM exemptions would have been preferable to the proposed tax increase.

Seniat is to be reformed in the effort to improve tax collection and eliminate corruption in the customs service.

NEWS DIGEST

AMERICAN WORKFORCE

Baby boomers plan to work on after retirement

Eight out of 10 baby boomers, part of America's largest ever generation, say they plan to keep working at least part-time after they retire from full-time employment.

That compares with just 12 per cent of people over 65 who are in the workforce now, according to a poll released yesterday at the opening of the American Association of Retired Persons 40th anniversary convention.

"There's going to be a much richer range of work options demanded in the future by retirees," said John Rother, the association's director of public policy.

The telephone survey found a third of the 2,001 Americans born between 1946 and 1964 said it was mainly for the enjoyment of it that they wanted to work part-time after they retire. "We can't imagine anything else, we're so career focused," said Mr. Rother, a baby boomer himself at age 50.

Some 5 per cent plan to retire from their present job but try a new full-time career, and 17 per cent want to start their own business. About a quarter of boomers say they do not expect to at all and will work because they will need the money to get by. "Those who are not optimistic are a significant minority," said Harry O'Neill, a vice-president of Roper Starch Worldwide, which conducted the poll.

Baby boomers started turning 50 in 1996 and eventually will add 77m to the ranks of the retired. AP, Minneapolis

US EFFORTS SNUBBED

OAS may admit Cuba

The Organisation of American States has set out conditions to re-examine Cuba's entry into the group, despite US efforts to keep Cuba off the agenda. Cuba's re-entry would depend on the island's progress in promoting "more civil and economic liberties as well as more protection of human rights", according to César Gaviria, OAS secretary general. Mexico also made a formal proposal for the 34-member OAS to study the issue during the organisation's three-day meeting in Caracas.

The renewed debate is seen as an affront to the US. A report by the Inter-American Human Rights Commission said the US policy of isolating Cuba "appeared not to be the most appropriate way to create conditions for a peaceful and gradual transition to a pluralist and civil society".

Mr. Gaviria also said the OAS was seeking to streamline its operations and cut costs ahead of negotiations towards an American Free Trade Area. Raymond Collin, Caracas

NEW PANAMA LAW

US extradition over drugs

An alleged member of Colombia's Cali drug trafficking cartel has been extradited from Panama to face trial in the US, two days after Panama changed the law to allow the government to hand over foreigners to third countries. An indictment in the US charges José Castañón Henao and 15 others with drug smuggling and money laundering offences. Mr. Castañón Henao has been under arrest in Panama since 1996 and faces a preliminary court hearing in April. A judge was expected to rule soon on whether he should stand trial in Panama.

Rogelio Cruz, lawyer for Mr. Castañón Henao, said the handover was made to prevent possible revelations in a Panamanian court that could have been damaging to figures in the administration. Shortly after Mr. Castañón Henao's arrest two years ago President Ernesto Pérez Balladere admitted unknowingly accepting a campaign donation of \$51,000 from a company linked to him. James Wilson, Panama City

GENERAL MOTORS

Talks on industrial action plan

Union officials said yesterday they were continuing to negotiate with General Motors, the largest of the US carmakers, about "streamlining productivity" at the Flint parts-stamping plant north of Detroit, ahead of threatened industrial action which could start as early as Friday. The talks have failed so far to make significant progress.

The United Automotive Workers union, which represents 3,400 employees at the plant, issued a five-day strike notice to the company last week. The Flint Metal Centre, which makes parts for GM trucks and sport-utility vehicles, had been due to produce sheet metal panels for the company's newly engineered Chevrolet Silverado and GMC Sierra full-sized pickup trucks, which are scheduled to be launched shortly. GM has already responded to the strike threat by moving some of the dies used to produce the metal parts.

Part of the dispute centres on GM's reluctance to replace workers who leave - part of a broader strategy to reduce workforce numbers. The workforce in Flint has already been reduced substantially over recent years, as production and other activities have been relocated. Nikki Teit, Chicago

STREETS OF NEW YORK

Food vendors prepare strike

New York street vendors, the latest victims of Mayor Rudolph Giuliani's campaign to improve the quality of life in New York City, are today expected to hold a strike and demonstration to protest at the mayor's plan to banish them from large swathes of Manhattan.

The strike threatens to disrupt the eating patterns of thousands of New Yorkers, whose day begins with a bagel and a cup of coffee from a street corner food cart and is punctuated thereafter with hot dogs, pretzels and sodas that are bought and consumed on the spot.

Mr. Giuliani, who is still in the throes of pushing through new tax regulations that are being bitterly fought by drivers, has proposed banning all kinds of street vendors from much of the financial district and from two large sections of midtown.

Most vendors are licensed by the city and are as much a part of the New York streetscape as yellow cabs. But Mr. Giuliani says their carts are unsightly and unhealthy, and cause congestion, detracting from the city's quality of life. Richard Tomkins, New York

SLIGHT APRIL FALL LONG TERM TREND POINTS TO ONLY VERY GRADUAL INCREASES NATIONWIDE

Fears ease of surge in US house prices

By Gerard Baker in Washington

Fears of an unsustainable surge in residential US property prices were damped yesterday with the release of figures showing a drop in average prices paid for new homes in the year to April.

The Commerce and Housing and Urban Development Departments reported that while new home sales were 16 per cent higher than a year earlier in April, the median price paid actually declined by 1.5 per cent.

This price fall may have been exaggerated by the fact that most extra homes sold

in April were in southern states, where prices tend to be lower. But the figures suggested the longer-term trend in house prices is one of only very gradual increases nationwide.

In the first four months of the year, the median house price was just 3.2 per cent higher than in the same period last year.

The sharp rise in the number of home sales in April suggested the strength of domestic demand remained impressive. But stripping out the south, sales contracts fell. Sales rose overall by 5.2 per cent in April from the previous month to a record

annualised rate of 898,000. In the south, purchases were up by 23 per cent, but in the rest of the country they dropped by 4.3 per cent.

Much has been made by some economists in the last few months of the recent sharp increase in property prices in some big cities - notably New York. This has been cited as a sign the US may be experiencing a bubble in asset prices, similar to the one that has hurt Japan. But the national US figures paint a much less dramatic picture of modest house price inflation.

Other figures published yesterday showed a modest increase in the index of leading indicators in April. The Conference Board, a private sector research group, said the index, a fairly reliable predictor of economic activity in six months' time, edged up by 0.1 per cent in April, following a 0.2 per cent increase the month before.

The index is compiled from 10 regularly published sets of economic data, including money supply, the average work week and unemployment insurance claims. "While four of the 10 leading indicators actually

fell, none has emerged as a dark cloud on the economy's horizon," said Michael Boldin, the Conference Board's director of business cycle research. Money supply and stock prices were the main contributors to growth.

One other report yesterday suggested small manufacturers remain bullish about their prospects over the rest of 1998. The National Association of Manufacturers' annual survey of 10,000 businesses with 500 or fewer employees found that most companies expect sales and profits to increase in 1998 compared with last year.

CONTRACTS & TENDERS

ANNOUNCEMENT

The Central Bank of the Republic of Armenia announces an international tender for auditing the Financial Statements of the Central bank of the Republic of Armenia by an internationally accepted independent audit firm. The following information is required:

- work experience of the firm of at least 10 years
- experience of auditing central banks of CIS or Eastern European countries
- presence of permanent representations in the Republic of Armenia or other CIS countries
- auditing cost estimates
- auditing terms and conditions
- additional information about audit firm.

The audit firm is requested to send an appropriate application accompanied by all necessary documentation in a sealed envelope. Tender submissions should be submitted to the Central Bank of the Republic of Armenia no later than 30 July 1998.

Your applications will be considered by the Central Bank of the Republic of Armenia Board in the light of the criteria above. You will be informed in writing on the results of the selection by 31st August 1998.

Central Bank of the Republic of Armenia

Nalbandian Street 6

375010 Yerevan-10

Republic of Armenia

Tel: (374-2) 583841, (374-2) 580368

Fax: (374-2) 151107 AT&T

E-mail: cba@mbx.aminfink.net

Contact Person:

Head of Internal Audit Group

Mr. Norekyan Andranik

IMF aid for Zimbabwe's reserves

By Tony Hawkins in Harare

The International Monetary Fund is to lend Zimbabwe \$175m in the form of a 13-month stand-by credit which will allow Harare to draw \$22m immediately to replenish its depleted reserves.

The agreement coincides with student protests which have undermined the country's continuing economic and political turmoil.

The university of Zimbabwe in Harare was closed indefinitely yesterday, after several days of disturbances in which students have been demanding that grants be increased and that President Robert Mugabe tackle corruption in his 19-year government.

The IMF risks being accused of double standards in lending to Zimbabwe when it will not lend to Kenya, whose reform track record, albeit unsatisfactory, is arguably better than Harare's.

The Fund would not doubt claim that the situations are different and that a 13-month stand-by does not carry the same weight of conditionalities as a three-year Enhanced Structural Adjustment Facility.

Some believe the loan to be justified because it may give the Fund - and the donor community at large - greater leverage over Zimbabwe than in the past.

The loan is likely to stabilise the Zimbabwe dollar,

which lost 10 per cent of its value in April but which has since stabilised and was quoted yesterday at Z\$17.95 to the US unit. On a trade-weighted basis, the Zimbabwe dollar has been devalued by a third over the past year.

The disbursement of future tranches will depend on the government's ability to meet agreed targets that have been greeted with a mixture of cynicism and amusement by economists and bankers, who question their credibility.

With private sector employers granting wage awards in excess of 30 per cent, the government is coming under pressure to agree similar pay awards for teachers and civil servants, which if conceded would rule out any chance of meeting the budget deficit target.

Other threats to the budget include the student demands and the probability that the state will be forced to reimburse holders of allegedly fraudulently issued bills, which carry a government guarantee.

The Fund says the immediate challenge facing Zimbabwe is to replenish its foreign exchange reserves to at least 1.5 months of import cover by the end of the year. Despite what it believes are "improved prospects", Zimbabwe is facing a "substantial financing gap" in 1998 which could be partially filled by donor support.

New Congo ministers appointed

Laurent Kabila, Congo's president, appointed 13 new government ministers yesterday after purging his inner circle of five cabinet members and placing them under arrest, agencies report from Kinshasa.

The cabinet was expanded from 27 to 37 ministers and included two new senior ministers of state, Pierre Victor Moyo and Deo Gratias Bugera, Mr Kabila said.

No explanation was given for the appointments and the new ministers were to be sworn into office in a private ceremony yesterday.

Mr Bugera was a co-founder of the rebel movement that swept the president to power over the late dictator Mobutu Sese Seko in May last year. His appointment at the top of the government appeared to be a gesture toward ethnic Tutsis who spearheaded the rebellion.

Some members of the Tutsi community feel they have been sidelined.

Mr Kabila has attracted international condemnation for arresting journalists, political opponents and human rights activists since coming to power in a rebel takeover last year.

The president has dismissed the criticism, saying it originates from western imperialist foes and allies of the former dictator.

Raphael Ghenda, former information minister and another close ally of Mr

Kabila, was among five ministers who have been detained at a government residence since last week.

The other four were Celestin Lwanguy, Etienne Mbayi, Kamale Mututulo and Kokombe Kiteke.

Asked about the reshuffle, Mr Kabila said earlier on Monday: "We want to have a more efficient team." He was speaking to state television at Kinshasa airport on his return from a three-day trip to Lubumbashi. Mr Kabila met Etienne Tshisekedi, the internally exiled opposition leader, at a military barracks outside the southern city on Saturday.

The meeting was the first between the two men since Mr Kabila came to power. There has been no official explanation for the meeting with the popular former prime minister, which has been widely called for in an effort to resolve the political stalemate.

Mr Kabila has co-opted several former close allies of Mr Tshisekedi into his administration, despite the latter's continued criticism of what he perceives as the president's autocratic style.

Potential lenders have linked aid to the impoverished country to respect for human rights and democratic reforms.

Mr Kabila appointed a minister for human rights - a development seen as a strong signal to donors.



ILO pledge to fight child labour

The head of the International Labour Organisation (ILO) pledged yesterday to work to ensure governments around the world backed a new convention aimed at eliminating the worst forms of child labour, Reuters reports from Geneva.

Michael Heseltine, the UN agency's chief, spoke after participating in a six-month "Global March against Child Labour" (left) won a standing ovation at the start of the ILO conference at the UN's Palais des Nations.

N-tests raise Mideast stakes

By Judy Dempsey in Jerusalem

When India and Pakistan carried out nuclear tests last month, Israel failed to support the US, its staunch ally, in a call to impose sanctions on the two new nuclear powers.

Instead, an undeclared nuclear power itself, Israel warned that such tests could encourage Iran to follow suit. Iran is still perceived by Israel as the *bête noir*, the greatest threat to Israel's long-term security.

Iran insists it has no nuclear weapons programme, but many Arab states take the view: if Israel can possess nuclear capability, why shouldn't they?

Israel has been lobbying the Clinton administration and Congress to put pressure on Russia and China - two nuclear powers - to prevent the export or sale of nuclear material to Iran.

But advisers to Benjamin Netanyahu, Israeli prime minister, believe that while Pakistan's nuclear tests were motivated by its rivalry with India, it could become possible for Iran to obtain

Two killed in Tehran explosion

An explosion killed two people and injured two others at an Islamic revolutionary court in Tehran yesterday, Iranian state television said, Reuters reports from Tehran.

"In an explosion at the Tehran Islamic revolutionary court two people were martyred and two

people were injured," state television said, adding that the cause of the blast was being investigated.

Analysts said the use of the word "martyred" suggested that the explosion could have been caused by a bomb but there was no official confirmation.

neighbours, including Egypt, Jordan, the Palestinians, and even Lebanon and Syria.

The argument was that if Israel's long-term security was threatened, those threats should not come from its neighbours.

Indeed, the Labour government was just as concerned with Iran and Iraq's potential nuclear capability as Mr Netanyahu. But the difference was that Labour wanted to forge a kind of buffer zone with its neighbours, possibly eventually bringing them under Israel's nuclear security umbrella.

"Netanyahu is now destroying those ties and could push moderate Arab states closer to extremist ones," said Mr Sneh. "He doesn't see the damage he is doing to Israel's security. He does not see how he is isolating Israel while Arabs are uniting against us."

Both government officials and the opposition believe such a trend may be arrested if Mr Netanyahu agrees to a second and third Israel troop pullback from the West Bank. It could, they add, help rebuild confidence in the region.

Cairo ban fuels media fears

By Mark Hubbard in Cairo

Egypt has banned the printing of the country's leading independent English-language newspaper fueling speculation that the government plans to silence media criticism of its policies.

Two months after it banned the printing of 36 foreign-registered publications in industrial free zones near Cairo, the government has allowed the publication of all allowed publications as but those it describes as "specialist magazines" dealing with cultural and consumer issues, but reimposed it on the independent newspapers.

The new ban affects the twice-monthly Cairo Times and the weekly Middle East Times, Egypt's most widely read non-government

English-language publications. Neither is banned from circulation, but both must now meet the high and potentially prohibitive cost of printing abroad which will add 20 per cent to their expenses.

Staff on both newspapers believed the ban in April was directed specifically at them and that the blanket action on all foreign-registered publications printed in Egypt was a tactic to defuse suggestions that the government had no real commitment to press freedom.

The Sahara Printing House, printer of all 36 publications, has now received specific instructions from the information minister that it cannot print the two newspapers.

"We received instructions that the Cairo Times and the

Middle East Times cannot be printed because they are newspapers not magazines," said Tarek Michel, company spokesman.

However, the company has been permitted to print the Hello Times, a newspaper closely resembling the Cairo Times.

This apparent contradiction has added further fuel to suggestions that the specification of the publication is barely relevant and that it is the newspapers' contents which has been targeted.

"They are playing with gloves off when they start to scare the printer. They terrified him into it," said Hisham Qassem, owner and publisher of the Cairo Times. "It's an animal-like instinct with them. They are gagging with the press. If this goes on we will go under in September."

The government has been reluctant to discuss the issue since the April ban.

Government officials do not say that a ban has been imposed due to the newspapers' content. The technicalities of imposing the ban have fallen to the General Authority For Investment which controls the free zones, portraying it as an economic rather than a political decision.

"Digging into this issue isn't helpful," said one senior official yesterday, in an effort to deflect questions on what has become an increasingly sensitive issue for the senior ministers involved.

"I don't know which ministers are involved. I don't sit with the people who decide on this. They are very sensitive," he said.

LEGAL NOTICES

This notice is important and requires your immediate attention. If you are in any doubt about the action you should take, you should consult immediately your stockbroker, bank manager, solicitor, accountant or other professional adviser authorised under the Financial Services Act 1986.

£100,000,000 9% per cent. Perpetual Subordinated Notes

Issued on
31st January, 1994

by
BARINGS PLC
(In Liquidation in England)

NOTICE IS HEREBY GIVEN that a meeting (the "Perpetual Noteholders Meeting") of the holders of the above-mentioned notes (the "Perpetual Notes") is convened for the purpose of considering and, if thought fit, approving modifications to the terms of the Perpetual Notes and the Perpetual Trust Deed (as defined in the Circular referred to below) to implement the Proposals (as defined and described in the Circular). The Proposals relate to a proposed scheme of arrangement between, among others, Barings PLC (the issuer of the Perpetual Notes) and the Perpetual Trustee (as defined in the Circular). The terms of the extraordinary resolution to be proposed at the Perpetual Noteholders Meeting are set out in full in the Circular.

The Perpetual Noteholders Meeting will be held at 11.00 a.m. on 6th July, 1998 at The Insurance Hall, 20 Aldermanbury, London EC2V 7HY (or, if later, on the conclusion or adjournment of the preceding meeting convened for that day referred to in a circular dated 2nd June, 1998 (the "Circular") detailing the Proposals).

Circulars will be distributed through Euroclear and CedeL Bank. This notice is issued pursuant to the provisions of the Perpetual Trust Deed. A summary of the arrangements which have been made for the purpose of voting in respect of the extraordinary resolution is set out below.

If the extraordinary resolution is passed, the rights of the holders of the Perpetual Notes may be fundamentally altered.

VOTING ARRANGEMENTS

The following is a summary of the arrangements which have been made for the purpose of voting in respect of the extraordinary resolution to be proposed at the Perpetual Noteholders Meeting. These arrangements satisfy the requirements of the provisions contained in the Perpetual Trust Deed relating to meetings of holders of Perpetual Notes convened for the purpose of passing an extraordinary resolution. Full details of these arrangements, and the action to be taken by investors in Perpetual Notes, are set out in the Circular.

The Perpetual Notes are in permanent global form held by The Chase Manhattan Bank as common depository for the clearing systems operated by Euroclear and CedeL Bank. A holder of a Perpetual Note for the purpose of the Perpetual Noteholders Meeting is an Account Holder, being a person who is recorded in the books of Euroclear or CedeL Bank as holding an interest in Perpetual Notes. Each investor in Perpetual Notes should convey his instructions to his Account Holder as described below:

1. Completing a Voting Instruction Form: Votes attributable to Perpetual Notes may be cast either by attending and voting at the Perpetual Noteholders Meeting (or by appointing someone else to do the same) or by instructing the votes to be cast in a specified manner in your absence. The Circular is accompanied by a Voting Instruction Form. Investors in Perpetual Notes should complete this form to elect whether to:

(A) attend and vote at the Perpetual Noteholders Meeting (or appoint someone else to do the same), in which case the person attending the Perpetual Noteholders Meeting must complete and submit a Voting Instruction Form to apply for a Voting Certificate as described in 2 below; or

(B) instruct a Paying Agent (as defined below) to arrange for the votes attributable to their interest in Perpetual Notes to be cast in a specified manner in their absence, in which case the person giving the instructions must complete and submit a Voting Instruction Form to apply to be included in a Block Voting Instruction as described in 3 below.

Voting Instruction Forms should be completed and submitted as described below in sufficient time for Account Holders to forward details of them to Euroclear or CedeL Bank (as appropriate) by close of business (local time) on 1st July, 1998.

2. Attending to vote in person: If you wish to attend and vote at the Perpetual Noteholders Meeting in person, or to nominate and appoint another person to attend and vote at the meeting in person on your behalf, you must produce at the Perpetual Noteholders Meeting a Voting Certificate which has been issued by one of the paying agents for the Perpetual Notes (the "Paying Agents") in respect of the Perpetual Notes on which you wish to vote.

To obtain a Voting Certificate from a Paying Agent, you must complete the relevant section of your Voting Instruction Form, and submit it to your Account Holder, who will forward the details of your instructions to Euroclear or CedeL Bank as appropriate. The Perpetual Notes must be deposited or held with or (to the satisfaction of the relevant Paying Agent) to the order of a Paying Agent not later than 48 hours before the time appointed for the Perpetual Noteholders Meeting. Euroclear and CedeL Bank (as appropriate) will (if instructed) arrange for this to be done.

The Paying Agent will then issue a Voting Certificate to the person specified in the instructions contained in your Voting Instruction Form. The bearer of the Voting Certificate is entitled to attend and vote at the Perpetual Noteholders Meeting in respect of the Perpetual Notes represented by that Voting Certificate. Voting Certificates will be valid until the Perpetual Notes are released by the Paying Agent and until then the bearer of any Voting Certificate will, for all purposes in connection with the Perpetual Noteholders Meeting, be deemed to be the holder of the Perpetual Notes to which the Voting Certificate relates.

3. Arranging for votes to be cast in your absence: If you are entitled but do not wish to attend and vote at the Perpetual Noteholders Meeting or to nominate and appoint someone else to attend and vote at the Perpetual Noteholders Meeting on your behalf, you may instruct a Paying Agent to arrange for the votes attributable to any Perpetual Notes in which you have an interest to be cast in a particular way, by instructing that Paying Agent to include those instructions in a Block Voting Instruction issued by that Paying Agent. To apply to include your instructions in a Block Voting Instruction issued by a Paying Agent, you must complete the relevant section of your Voting Instruction Form and submit it to your Account Holder, who will forward the details of your instructions to Euroclear or CedeL Bank as appropriate. The Perpetual Notes must be deposited or held with or (to the satisfaction of the relevant Paying Agent) to the order of a Paying Agent not later than 48 hours before the time appointed for the Perpetual Noteholders Meeting. Euroclear and CedeL Bank (as appropriate) will (if instructed) arrange for this to be done.

The Block Voting Instruction issued by the Paying Agent will set out in aggregate how many votes are to be cast in favour of, and how many against, the extraordinary resolution and will appoint the chairman of the Perpetual Noteholders Meeting to vote at the Perpetual Noteholders Meeting in accordance with those instructions. Block Voting Instructions will be valid until the Perpetual Notes are released by the Paying Agent and until then the chairman (as the proxy named in each Block Voting Instruction) will, for all purposes in connection with the Perpetual Noteholders Meeting, be deemed to be the holder of the Perpetual Notes to which the Block Voting Instructions relate.

M. E. Mills
joint liquidator of Barings PLC
as agent and without personal liability

2nd June, 1998

Principal Paying Agents:
The Chase Manhattan Bank
Trinity Tower, 9 Thomas More Street,
London E1 9YT, England
Attn: Stephen Nash
Tel: (44) 171 777 5422
Fax: (44) 171 777 5410
Telex: 8954681 CMBG

Paying Agent:
Chase Manhattan Bank Luxembourg, S.A.
5 rue Pictet,
L-2338 Luxembourg-Grand
Attn: Veronique Cridel
Tel: (352) 4626 85284
Fax: (352) 4626 85380
Telex: 12331LU

CONTRACTS & TENDERS

TENDER NO: 77/3535



Mobarak Steel Company intends to purchase 3500 M/ton graphite powder with the following specification:

CHEMICAL COMPONENT

C.Fix:	Min 99%	P:	Type 0.2%
Volatiles:	Type 0.4%	Size:	3mm (Min 88%)
Humidity:	Type 0.2%		
Ash:	Type 0.45%		
S:	Type 0.7%		

Interested bidders may obtain a set of bidding documents by the submission of a written application and payment of non-refundable fee of USD500, in favour of Mobarak Steel Company, through Bank Markazi Iran account no. 138. All bids must be delivered to below office on or before 30.7.98:

MOBARAKEH STEEL COMPANY
15 KMS SOUTH WEST OF MOBARAKEH
PO BOX 167 ESFAHAN IRAN
RAW MATERIAL AND ENERGY PURCHASING DEPARTMENT
FAX: 0098 31 327512 & 324324
TEL: 0098 3355 3707

MOBARAKEH STEEL COMPANY

WORLD TRADE

FINANCIAL FALLOUT ANOTHER BIG DROP LIKELY IN ALBUM SALES IN WHAT USED TO BE A GROWTH REGION

Harsh sounds in Asia's music market

By Alice Rowntree in London

Conditions in the Asian music market will continue to deteriorate this year, with album sales set to decline by at least 20 per cent against 1997 figures, according to Music Business International (MBI), the industry magazine.

Asia was one of the fastest growing regions for the world's record companies until last year's financial crisis in the region. Record sales have since fallen sharply, triggering job losses and company closures across the local music industry.

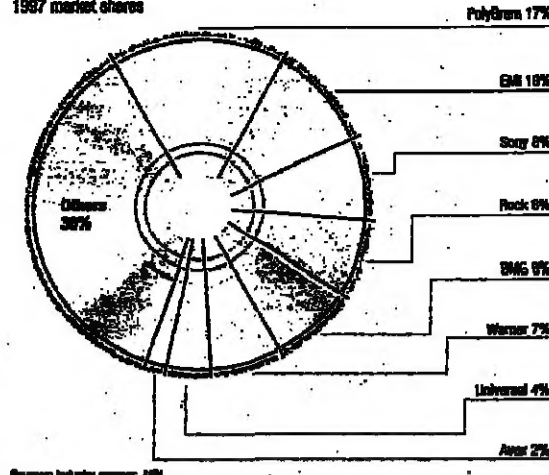
MBI's research suggests the situation will worsen this year. This could pose problems for Asia's independent record labels and multi-

national music groups, notably PolyGram of the Netherlands, which has long been the biggest record company in Asia and is now to be taken over by Canada's Seagram in a \$10.5bn deal.

Asia has been one of the global music industry's prime sources of growth since the early 1990s, but record sales in the region (excluding Japan) tumbled by 12.5 per cent to \$1.75bn in 1997, from \$1.99bn in 1996, according to the latest figures from the International Federation of the Phonographic Industry (IFPI).

The rate of decline has varied from country to country. South Korea, once Asia's second largest music market after Japan, suffered a 24 per cent fall in volume sales to 48.1m units last year, accord-

CD sales in 1997



ing to the IFPI, with dollar sales down 35 per cent to \$334.6m.

Four of South Korea's biggest record wholesalers have gone out of business, including Kukdo, once the country's largest. MBI's research suggests that volume sales will fall by at least another 40 per cent in South Korea this year.

The politically unstable Indonesian market is even more vulnerable. IFPI's fig-

ures suggest that album sales fell by 16 per cent in volume there last year, and by 35 per cent in dollar terms to \$146.8m. MBI expects Indonesian unit sales to decline by another 70 per cent this year.

Hong Kong is braced for a repetition of 1997's 11 per cent reduction in dollar sales to \$148.8m. Similarly, Thailand could face a repeat of last year's 30 per cent decline

in sales to \$170.6m.

Trading conditions could become tougher in Malaysia, which mustered a 3 per cent rise in sales to \$102.6m during 1997. Singapore confronts a fall in sales of 10 per cent this year, after 1996's negligible 1 per cent increase to \$76.6m.

The most stable markets are expected to be Taiwan, which overtook South Korea last year after an 8 per cent sales increase to \$427.8m, and China, where sales rose by 50 per cent in local currency to \$284.3m during 1997, largely because of a piracy clampdown.

Despite the progress in China, MBI expects a continued increase in music piracy throughout Asia.

Another source of instability for the industry is the proposed merger of PolyGram with Seagram's Universal Music subsidiary. MBI estimates that the two companies will have a combined Asian market share of 21 per cent, double that of EMI, the second largest company in the region.

Music Business International is published by Miller Freeman, 8 Montague Close, London SE1 9UR. Tel: 0171 620 3636.

Visa launches 'smart' card

By Christopher Brown-Humes in London

Visa International yesterday launched a new multi-application "smart" card, giving a further push to the rapid growth of chip-based cards globally.

Ed Jensen, chief executive of Visa International, said the card would replace "the consumer's wallet" in effect giving consumers a bank in their pocket.

Smart cards contain an embedded microprocessor and memory chip, making them more sophisticated than the magnetic stripe cards that dominate the credit and debit market today. Issuers say smart cards will allow users to replace their numerous cards with a single, secure, card combining different functions. Apart from credit, debit and cash, these could include loyalty cards, electronic passports, passbooks, and health details.

Visa and Standard Chartered showed one of the new cards being used in Singapore to buy a watch over the internet, claiming this was a global first for a chip-card. After being tested in Singapore, it is expected to be rolled out to Taiwan, Hong Kong and other Asian countries next year.

Visa said the card would be based on an "open" operating environment to make it easier for software developers and encourage take-up. It relies on two industry standards: the Java programming language and Visa's Open Platform.

Smart cards are growing rapidly, although the real global explosion in the market is not expected until early next century. Visa's fastest in Asian countries and Europe, particularly France, with the US further behind. Visa believes as many as one third of its cards could be carrying a chip by the year 2001.

Digital economy, Page 22

NEWS DIGEST

FARM PRODUCTS ROW

Brussels studies response to US wheat gluten quotas

A transatlantic trade row over farm products escalated yesterday as the European Commission said it was "examining all appropriate responses" to a US move to introduce quotas on imports of wheat gluten from the European Union.

The move came days after the US announced plans to subsidise its barley exports to a number of countries, in retaliation for a shipment of 30,000 tonnes of subsidised European barley shipped to California last week. The EU called that action "totally disproportionate".

The US introduced late on Monday a three-year quota on wheat gluten imports from the EU, limiting its share in the first year to 24,513 tonnes (54m lb), after a similar surge in imports from the EU.

The EU's Brussels-based executive said it had been "evident for some time" that the economic situation of wheat gluten in the US, following reform of the EU's Common Agricultural Policy, would lead to European wheat gluten becoming more competitive than the US product.

It added it had co-operated with a US request for consultations over the issue. Brussels said it had provided evidence of the economic causes for the exports increase, and suggested remedies. "The [European] Commission is satisfied that this evidence was ignored," it said, adding that the US action was "disproportionate and discriminatory".

The Commission said the quota was the "most trade restrictive measure that could have been applied and represents a major restriction on European exports".

Neil Buckley, Brussels

UKRAINE TRADE

Nissho Iwai agrees deal

Nissho Iwai, one of Japan's large trading companies, has agreed a comprehensive investment deal with Ukraine's Ministry of Industrial Policy, which is expected to lead to loans and investments in the Ukraine of between \$1.5bn and \$1.6bn. The agreement would represent a large push by the trading company into one of the most industrialised former Soviet republics.

Nissho Iwai has already agreed loans worth \$70m to Ukraine's public corporation, which is planning the launch of commercial satellites together with private companies from the US, Russia and Norway. The company also hopes to win contracts for the modernisation of Ukraine's infrastructure and large manufacturing plants, such as those for steel, fertiliser and petrochemicals. Michio Nakamoto, Tokyo

ANDEAN PACT

Talks with Mercosur delayed

The Andean Pact, which groups Bolivia, Ecuador, Colombia, Peru and Venezuela, has postponed trade talks with the Mercosur trade grouping which were scheduled for yesterday. "The Andean Pact saw there were still pending issues among its five members," said Gustavo Moreno, Argentina's deputy representative at the Latin American Integration Association. No date for a new meeting was set.

The two trade blocs signed a framework agreement for trade liberalisation in March and were scheduled to discuss tax exemption lists. Mercosur comprises Argentina, Brazil, Paraguay and Uruguay. International Staff

Brussels under fire over Lomé

By David Satchell in London

A UK parliamentary committee yesterday delivered a broadside attack on European Commission proposals to turn the Lomé convention of 71 developing countries into a free trade area.

The EU is gearing up for one of its mammoth renegotiations of Lomé, with foreign ministers due next Monday to discuss trade aspects of the commission's bargaining mandate for the opening of formal talks in September.

Looking beyond the next renewal of Lomé for 2000-2006, the Commission has

called for the EU to work towards free trade areas with Africa, the Caribbean and the Pacific (ACP), mainly because it believes it will be impossible to get the World Trade Organisation to agree to another special waiver for Lomé tariff preferences for poor country goods in the EU market.

But the House of Commons' International Development committee said if ACP countries let EU goods in duty free, their economies could not withstand the competition and their public finances would crack. The committee cited the example

of Swaziland, where 80 per cent of the money spent on health and education came from import duties. It went on to complain "it is immoral for the EU to misuse its economic strength to dictate clearly unfavourable terms to the ACP".

The UK committee criticism comes as the UK government, currently presiding over the EU, is trying to bridge the traditional divide between northern country liberals and southern protectionists on Lomé trade issues in order to get a final negotiating mandate by the end of this month.

Oil companies fear Argentine move

By Ken Wain in Buenos Aires

Argentine draft legislation on oil exploration in the South Atlantic has alarmed companies exploring in the region and threatens to cast a cloud over President Carlos Menem's planned trip to Britain later this year.

Although the first exploration well in Falkland waters failed to find commercial quantities of oil and gas, the international exploration effort appears to have galvanised the Argentines into action.

The proposed legislation, which may be considered by the lower house of Congress as early as today, would impose fines of up to \$10m on companies which fail to

pay Argentina a 3 per cent royalty on any eventual oil or gas production from waters around the disputed Falkland Islands.

Companies failing to comply with the Argentine demand could also face being barred from government contracts or even from conducting business in Argentina. The Senate must also ratify the law, but has already unanimously backed the proposed fines. Depending on its final form, the legislation could run counter to the 1985 Anglo-Argentine agreement on oil exploration in the South Atlantic.

Article 6 of the accord explicitly blocks actions by either country which threaten oil companies' ability to operate in the region. Exploration began in waters to the north of the islands in April under the terms of an exploration round called by the Falkland Islands government. Britain and Argentina also agreed in 1985 to call a joint exploration round, which has yet to be launched. The threat of punitive measures against companies operating in the region could make them think twice before getting involved.

The proposed fines would extend to the oil companies' joint round, which has yet to be launched. The threat of punitive measures against companies operating in the region could make them think twice before getting involved.

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The exploration effort appears to have galvanised the Argentines into action

tion round in a zone to the west of the islands, straddling the disputed area and Argentine waters. The two countries fought a brief war over the islands in 1982. The proposed legislation could also complicate the

suppliers, said Guido Di Tella, Argentina's foreign minister, and could even include Argentina-based multinational Techint, which is supplying steel tubing for the exploration effort. Companies with no

Chinese telecoms may open up soon

By James Kyngie in Beijing

Chinese and foreign companies are hopeful that China's fixed-line telecommunications monopoly may come to an end next month, opening the way for limited competition with China Telecom, the dominant state company.

Chen Youde, deputy director of the international department of China Unicom, the state-run company which is set to compete with China Telecom in the fixed-line business, said that his company might be granted interconnection with China Telecom's network in the north-eastern city of Tianjin in July.

Interconnection, withheld for nearly a year by China Telecom, is crucial because Unicom's 50,000-line network is considered too modest to be profitable.

Unicom's Tianjin network was launched last July, but has not been allowed to operate, mainly because of reluctance from China Telecom and its parent, the powerful former ministry of posts and telecommunications (MPT). Unicom is building similar fixed-line networks in the southern cities of Chengdu and Chongqing.

Although foreign companies are prohibited from operating telecom services in China, the Tianjin project has been structured to yield operating revenue to two for-

sign companies, Sprint of the US and Sumitomo Corp of Japan, which have put up capital for Unicom's infrastructure.

Sprint and Sumitomo are stakeholders in a joint venture, Tianjin Global Communications, with a local Tianjin concern. Tianjin Global, in turn, is Unicom's partner in the city. Portions of the operating revenue will, in theory at least, be passed on to the two foreign companies, executives said.

Executives at the two foreign companies said that China Telecom had recently signed a written agreement - but not a formal contract - to allow interconnection on July 15. The executives said there was no guarantee

that the agreement would be honoured but the existence of a written accord was at least a cause for optimism.

"China Telecom may yet put up new barriers," said one of the foreign executives. "They are now demanding that we install an interface switching system, which may delay things again."

Duncan Clark, managing director of BD Associates, a telecoms consultancy in Beijing, said it was uncertain whether China Telecom would grant a full range of interconnection services. "Whether there will be full interconnection locally, long distance, internationally and for mobile telephones remains to be seen," he said.

The optimism for imminent interconnection derives partly from a recent ministerial merger between the MPT and the ministry of electronics industry, which was the controlling stakeholder in China Unicom. The merger, which created the new ministry of information technology, removes the ministerial rivalry which helped to frustrate commercial competition.

A hard-hitting television programme last month on Unicom's predicament in Tianjin caught the attention of senior government officials, who have begun to push China Telecom to provide interconnection, officials said.

Shareholder Information January to March 1998

Mannesmann: continued improvement in results, good earnings outlook

- All Group sectors contribute to increase in earnings
- Orders received and sales up significantly
- Telecommunications continues strong expansion

Mannesmann got off to a good start in 1998 with strong growth and improved results. Orders received (+12%) and sales (+26%) were up significantly against the previous year. The result from ordinary activities was above that of a year ago thanks to the favourable development of the market and the successes achieved in the marketplace. The strictly value-oriented structural improvements also had a positive effect. All sectors contributed to the increase. Based on the present situation, Mannesmann also anticipates higher earnings for the full year 1998. At approx. 128,900, the number of employees at the end of March was up by 8% due, above all, to the inclusion of Philips Car Systems

(now VDO Car Communication) and to the continued expansion of Telecommunications.

Order intake increased by 12%, sales by 26%. At DM 11.1 bn, orders received by Mannesmann in the first quarter exceeded those of the same period last year by 12%. Above-average growth was achieved by Automotive and Telecommunications. Serial business in Engineering also reported marked growth.

Thanks to the efforts of all sectors, sales rose by 26% to DM 10 bn with sizable increases across the board. The development in Engineering, Automotive and Telecommunications was especially good. Half of the growth in Germany was derived from Telecommunications. Abroad Mannesmann achieved a gain in sales of 21%.

Telecommunications continued its dynamic development with sales climbing 39% to DM 2 bn. Mannesmann Mobilfunk posted a gain of 34%. At the end of March, the company had over 4 million subscribers.

Mannesmann Arcor achieved a highly successful start in telephone services for private customers. This segment accounted for about half the 67% growth in sales posted in the first quarter of the year. By March, Arcor was already handling more than 5 million minutes of call time per working day.

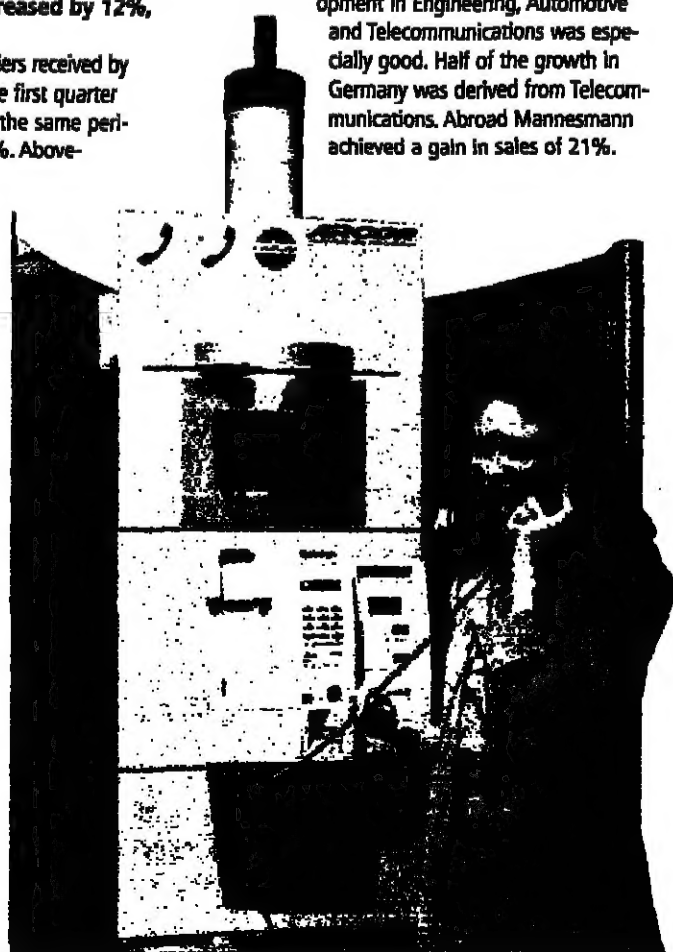
Our investments in Italy and France were also very successful. In March the number of Omnitel subscribers passed the three million mark. At SFR, Cegedel's mobile telephone company, the number of subscribers was increased by about 350,000 in the first quarter of 1998 to over 2.5 million.

We will be happy to send you our Shareholders' Letter with the report on the first quarter 1998 and the Annual Report on the financial year 1997 on request.

Mannesmann - working for your future

Group performance	Jan.-March 1998	Jan.-March 1997	Change absolute	Change %
Orders received	DMm 11,127	9,926	1,201	12
External sales	DMm 9,969	7,936	2,033	26
Domestic business	DMm 4,691	3,564	1,127	32
Foreign business	DMm 5,278	4,372	906	21
Employees (31.3.)	128,945	119,915	9,030	8

Mannesmann Arcor will be installing these multifunctional phone booths at airports nationwide in Germany this year



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سكان الامل

FOREIGN EARNINGS DEDUCTION STORM OF PROTEST GREET'S MOVE TO ABOLISH CONCESSION FOR CITIZENS WORKING OVERSEAS

Minister firm on abolition of tax relief

By David Wighton, Political Correspondent

The government yesterday rejected widespread opposition to its plans to withdraw tax relief for UK citizens working in other countries.

Dawn Primarolo, financial secretary to the Treasury, told MPs on the finance bill committee, which considers measures in the government's national Budget, that there would be no concessions over the plan, which

the government saw as "a question of fairness".

An unlikely combination of the Rolling Stones, the opposition Conservative party and Save the Children Fund attacked the plan.

Ministers were warned that the move would hit many teachers, nurses and engineers on modest incomes and would undermine the competitiveness of British consultancy firms. Lawyers acting for the Rolling Stones said it was a

"deeply unjust" measure which would retrospectively tax the crew on the band's current world tour.

Ms Primarolo's statement brought a furious reaction. David Heathcoat-Amory, a leading Conservative Treasury spokesman, said the minister had failed to address the concerns about the impact on competitiveness of the proposed abolition of the "foreign earnings deduction".

Describing the measure as

"economically illiterate", Mr Heathcoat-Amory said it would largely fail to hit the government's professed target, highly paid media and entertainment personalities. He said that while some of these "exponents of Cool Britannia" did use the loophole to avoid tax, if it was closed many would merely adopt foreign residency to achieve the same effect.

Under the government proposal, those working outside the UK who did not stay

overseas for a complete tax year would lose the current exemption from tax. However, Ms Primarolo said the exemption would stay for those who opted for foreign residency because this was governed by complex international rules.

Ms Primarolo dismissed a Conservative proposal that FEs should be retained for those with earnings of less than £87,600 (\$143,850) a year. Conservative MPs pointed to the warnings

about the move from a range of business groups including the Confederation of British Industry and the Institute of Directors.

Edward Davey, a Liberal Democrat MP who used to work as a consultant overseas, predicted that the move would lose the government money rather than raising £250m a year. He said it would drive consultants off-shore and encourage them to employ overseas staff.

NEWS DIGEST

NATIONAL LOTTERY OPERATOR

Directors restrain pay as ticket sales break records

Camelot, the consortium that operates the National Lottery, yesterday went some way towards rebuilding its relations with the government by reporting a year of record ticket sales coupled with a show of pay restraint by directors. The members of Camelot are Cadbury Schweppes, the UK food and drink group; De La Rue, the security printer; Rascal Electronics; and ICL, a UK offshoot of Fujitsu. The company's profits surged by 14 per cent to more than £80m (\$131m) on the back of the continuing popularity of the twice-weekly game.

The lottery's success allowed Camelot to give a record £1.6bn to the five good causes, and put it on course to easily exceed the £9bn it was charged with raising by the end of its licence in 2001. Yesterday's annual results were greeted with none of the political acrimony of last year, when Camelot's directors were pilloried by the prime minister's office for accepting pay awards of up to 40 per cent. This year's salary packages to lottery chiefs increased by 1 per cent to £2.4m, while the company's accumulation of record sales and profits was welcomed by the prime minister's office. "Self-evidently they are running a very efficient lottery and maximising the amount for good causes," said a spokesman for Tony Blair, the prime minister. George Parker, London

DIGITAL TELEVISION

BSkyB plans \$165m promotion

British Sky Broadcasting's launch this month of 200 digital channels is to be more low-key than expected, but the satellite television company is planning to spend up to £100m (\$165m) promoting its digital service later in the year. It emerged yesterday that BSkyB's digital channels will be available only to selected subscribers this month before being broadened later this year. The company, which planned to launch in "late spring", will spend about £50m on advertising in the first year and roughly the same on other promotional activities. Its advertising agency is M&C Saatchi.

The satellite broadcaster's offensive dwarfs planned expenditure by the rival digital terrestrial operator, British Digital Broadcasting. BDB is likely to spend between £30m and £40m on advertising in its first year.

BSB is jointly owned by Carlton Communications and Granada Group. Cathy Newman, London

NEWSPAPER TECHNOLOGY

Damages sought from FT

Four journalists went to the High Court in London yesterday to seek damages for injuries to their upper limbs which they claim they suffered while working as sub-editors at the Financial Times in the late 1980s. The four say the newspaper failed to take adequate steps to prevent the injuries by creating a safe working environment when it introduced new technology in 1987.

They argue that the newspaper should have known of the potential for injury to its workforce from the introduction of new technology from the experience of newspapers in the US and Australia using similar systems. Although the four are supported by the National Union of Journalists, the action was "not a crusade against the FT, which deserves credit for being a good and generous employer in most respects", their lawyer said. Robert Rice, London

NORTHERN IRELAND UNEASE OVER REFORM

Police officers jeer minister over prisoners

By Jimmy Burns

Mo Mowlam, chief Northern Ireland minister in the UK government, was jeered yesterday as she addressed a conference of Northern Ireland's police officers.

The incident was a poignant reminder of the deep unease shared by many Royal Ulster Constabulary officers about the changes proposed in the good Friday agreement.

As Ms Mowlam began to address the meeting, Gordon Taylor, whose colleague was killed by an IRA bomb, shouted: "Three hundred police officers murdered. No prisoner releases."

Ms Mowlam's presence alone came as an uncomfortable reminder that reform of the RUC and the release of convicted terrorists are two key measures contemplated in the agreement.

To many RUC officers the word "reform" smacks of ungratefulness. If not betrayal. "We are the segment that held the province together in the Troubles," the Les Rodgers, the federation's chairman, said recently, "and suddenly

we're told that we are the problem."

"It is very difficult and I understand when constable Taylor expresses that view," Ms Mowlam said afterwards. "I would just ask people, painful though it is, to put it in context. I know it's difficult. It's something families write to me and say 'I can't cope with it'."

"Others write to me and say 'Don't like it, find it tough, but if it means other families don't have to go through what we've gone through, then it's worth it'."

The RUC sees itself as sacrificed in the line of duty in one of the most politically volatile democracies in western Europe. Yet it also faces the prospect of no longer being one of the most highly paid and physically resourced forces in the world. Since the Troubles began, 299 officers have been killed by terrorism.

Yesterday Mr Rodgers was loudly applauded by delegates when he claimed that colleagues were "dismayed and appalled" at government plans to release former terrorists. He defended the RUC's "traditions and

Building business confidence



Nearly half the Northern Ireland companies surveyed by the PA consultancy after the April peace agreement said the cross-border bodies proposed in it would be "important" or "very important" for business prospects. The comparable figure in the Republic of Ireland was 40 per cent. The Northern Ireland figure was surprising because many anti-nationalist politicians there fear that such structures will be mainly political bodies forming the embryo for a future all-Ireland government. The survey, published today, uses interviews with executives in 62 of Northern Ireland's top 100 companies and from 81 of the top 300 in the Republic. PA found that, while the majority of companies were confident about the future, only a quarter were prepared to "underpin this confidence with increases in investment".

spirit", and vowed that the institution would defend itself against any big reorganisation.

Nationalist distrust of the RUC and the police's inability to recruit on any large scale from within the Catholic community have been among the main issues at the heart of Northern Ireland's sectarian problems.

Under the terms of the peace deal, a commission on police reform headed by Chris Patten, former governor of Hong Kong, has been given a wide and potentially far-reaching brief.

The commission is expected by next summer to come up with specific proposals "to ensure that policing arrangements, including composition, recruitment, training, culture, ethos, and symbols, are such that Northern Ireland has a police service that can enjoy widespread support".

Mr Patten hopes to draw both on his own political

expertise and the professional advice of his fellow commissioners in producing proposals that can contribute to peace rather than exacerbate tension. But he faces a daunting task.

Mike Brogan, lecturer at the Institute of Criminology and Criminal Justice at Queen's University in Belfast, said: "Policing problems in Northern Ireland might be surmountable if the different parties could agree what they actually signify. But as

elsewhere in the North, there is little shared focus."

Mr Patten is likely to tread a middle ground, encouraging steps already taken by the RUC to recruit Roman Catholics while looking at new ways of approaching the concept of two-tier policing. One possible reform could involve combining a locally unarmed community police with a highly specialised, possibly less visible and more intelligence-focused force.

Deal on rail link will not dispel London's worries

By Robert Preston and Jonathan Ford

Construction of the second phase of the Channel tunnel rail link through London will remain subject to uncertainty for years, John Prescott, deputy prime minister and chief transport minister, is expected to say today.

In a long-awaited statement to the House of Commons, Mr Prescott will announce a complicated deal with London and Continental Railways, the financially troubled sponsor of the £5.4bn (\$8.8bn) link from London to the Channel tunnel, to continue construction.

The first phase, to Ebbsfleet to the south-east of London, will be built on LCR's behalf by Railtrack, owner of the UK's rail infrastructure, and Bechtel, the international civil engineer.

But construction of the second phase through depressed areas of London's East End to St Pancras station, will remain uncertain

until about 2003. "There will be big incentives for it to be built," said a minister. "But we cannot give a copper-bottomed guarantee."

The continued uncertainty over the second phase, which is costly because much of it involves tunneling, will alarm London businesses and MPs. "For the sake of the capital's competitiveness, the regeneration of East London and improved services for commuters from the south-east, the link must be built all the way," said Stephen O'Brien, chief executive of London First, a business lobby.

According to a minister, Mr Prescott will announce a commitment to increase the public subsidy from the £1.8bn already pledged to the project. However, he said that the government would commit itself to a new subsidy for the first phase of between £300m and £400m. Further new funds would be advanced only if either Railtrack or another partner agreed to finance the construction of the remaining phases of the track.

The government is also expected to argue the additional amount needed to pay to subsidise the entire link will depend on the financial performance of Eurostar, the cross channel train service. Should the train operator's sales grow faster than expected, LCR would benefit under a revenue-sharing agreement - reducing the amount of subsidy needed.

Under the deal, Railtrack would agree to buy the first phase once complete at a price reflecting the cost of construction. This effective underwriting by Railtrack will help LCR raise finance in the City of London.

Railtrack's commitment will take the form of a "call option", an arrangement devised to avoid a possible requirement under EU public procurement rules for the government to re-open bids to construct the link. This would have been necessary if Railtrack had simply taken control of the project.

US-based car club members seek court ruling

By Charles Batchelor, Transport Correspondent

US-based members of the Royal Automobile Club are planning legal action at the High Court in London to win the same rights to the proposed £23,000-£26,000 (\$37,400) payout as UK and other European members.

They are also considering beginning a parallel action in the US courts claiming they are being discriminated against. If such an action succeeded, it could block the £450m sale of the RAC motoring services arm to Candiant, a US marketing group.

About 10 members, mainly from the US but including one in Switzerland, are seeking a High Court declaration in the UK that all "full" members should be treated equally. They also seek an injunction preventing the sale to Candiant.

The RAC's agreement to sell followed a claim by Jeffrey Rose, then RAC chairman, that it could not continue as a membership organisation. Mr Rose was sacked for seeking members' views without the approval of the board.

The RAC said it had taken legal advice that it was under no obligation to make payment to members outside the UK although those based in the European Union have for many years been treated as full members and will receive the payment.

"We cannot see why the overseas members have been excluded," said Jonathan Steinberg, a British lawyer based in New York and a leader of the members' revolt. An estimated 1,500 overseas members have been excluded from the payment.

The overseas shareholders' UK lawyer, Stephen Alexander of Epstein, Grover and Michael Freeman, said: "This is a classic case of an organisation with rules 100 years old and articles 30 years old wanting on the one hand to be a gentleman's club and on the other to be terribly modern."

EU change to workforce contracts causes alarm

By Andrew Botger, Employment Correspondent

Trade unions and employers have expressed concern over European Union plans to change the rights enjoyed by employees when service contracts change hands.

They are worried the proposals will change the present basis of "contracting out", which has seen tens of thousands of formerly public sector employees transferred to the private sector.

Contractors have been pressing the government to clarify the position since a European Court decision last year created confusion over the European Union Acquired Rights Directive - incorporated in UK law by the 1981 Transfer of Undertakings (Protection of Employment) Regulations.

Known as TUPE, they safeguard workers' redundancy and similar employment rights. Most UK

public sector contracts are let on the assumption that TUPE applies.

But a draft of a new acquired rights directive - which will go before the European social affairs council of ministers in Luxembourg tomorrow - contains proposals that could undermine TUPE. One proposal suggests transfers will not be covered by the new directive if they are part of an "administrative reorganisation of public administrative authorities, or the transfer of administrative functions between public and administrative authorities".

The British government has also tabled a new article that would allow representatives of employees to agree to alter terms and conditions, before or after a transfer took place, for "economic, technical, or organisational reasons".


Unions, the public service union, and the GMB general

union said they were concerned that such changes would allow contractors to drive "a coach and horses" through the regulations.

Mr Cliff Davis-Coleman, secretary of the Public Contractors' Association, said he was concerned that ambiguities in the present situation meant existing contractors would be disadvantaged.

"I have been reassured by the government that will not be the case, and if they cannot reach agreement on Thursday, they will proceed with UK legislation," he said.

Until the European court decision it had been assumed that the directive applied when contracts changed hands, with employees transferring to the new contractor. Without the protection of the directive, companies losing contracts could become liable for accumulated redundancy and other payments to staff.



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BRITAIN

EMU ESTIMATES OF JOINING RATE 'DANGEROUSLY AMBITIOUS'

Pound overvalued by 25%, say forecasters

By Robert Chote, Economics Editor

The pound is 25 per cent above its long-term sustainable level, implying that typical estimates of the exchange rate at which the UK could safely join Europe's single currency are dangerously overambitious.

The conclusion emerges from an authoritative study produced for the Institute of International Economics in Washington.

The authors correctly predicted, before Britain joined the European exchange rate mechanism in 1990, that a DM2.95 central rate would be unsustainable.

The latest study, by Simon Wren-Lewis and Rebecca Driver of Exeter University, suggests that sterling's "equilibrium" exchange rate against the D-Mark lies between DM2.10 and DM2.50. Not only is this well below the current rate of DM2.91, but it also lies below the DM2.60 that many observers see as a plausible entry rate for Emu.

The study uses the "fundamental equilibrium exchange rate" methodology developed by John Williamson and widely used to examine medium-term currency movements.

The approach begins by assessing the trend flows of international capital into and out of the country. This depends on private sector saving and investment, as well as the medium-term path of fiscal policy.

Structural inflows and out-

Tight spending limits to be set

Gordon Brown, chancellor of the exchequer, yesterday pledged to meet tight rules for the public finances - but still left room for increased spending before the next election, Richard Adams writes.

Mr Brown announced his intention to fix a limit for the ratio of government debt to gross domestic product for the rest of the current parliament. He will announce it when the comprehensive review of public spending has been completed next month.

"Meeting our fiscal rules also means that we will set the debt to GDP ratio at a prudent and sensible level; and in the outcome of our review we will set the figure for the whole parliament," Mr Brown said in the City of London.

The Treasury's forecast in the March Budget was for a general government gross debt-to-GDP ratio of 50.5 per cent in this financial year, falling to 40 per cent or below next. The announcement was a response to pressure from Labour MPs to boost spending in areas such as health and education. The opposition Liberal Democrat party called it "fiscal flagellation".

Flows of capital in the UK are roughly equal, which means that the UK can sustain a current account deficit of 0.2 per cent of gross domestic product. By comparison, the US can sustain

a 2 per cent deficit and Japan needs a 1.9 per cent surplus.

The equilibrium real exchange rate is the one that delivers this current account position when the economy is running at a trend rate of capacity consistent with stable inflation.

Sterling's strength is already pushing the UK's current account into the red and the report suggests that the deficit will quickly widen to unsustainable levels if sterling remains at its current highly overvalued rate.

Prof Wren-Lewis said that sterling's recent strength had led commentators to raise their estimates of sterling's long-term sustainable exchange rate, but with little justification. But he added that it was quite possible for sterling to fall to sustainable levels by the time the government was considering Emu entry early in the next parliament.

The study also suggests that the French franc, Italian lira and D-Mark are all near their sustainable exchange rates with each other at the moment, which implies that Emu entry should be relatively comfortable for them. But the dollar is 30 per cent overvalued against the yen and 5-15 per cent overvalued against the D-Mark.

Real Exchange Rates for the Year 2000, by S. Wren-Lewis and R. Driver, Institute for International Economics (www.iie.com)

Currencies, Page 25



Alan Shearer, the England forward, in Umbro's official strip

Sports goods makers team up against counterfeiters

Many shirts worn by soccer fans at the World Cup will be fakes, says Helen Jones

Fans thronging French stadiums for the soccer World Cup this month may be unaware that many of the shirts they are proudly wearing are fakes, turned out in British and Chinese sweatshops.

Trademark consultants suggest that total sales of counterfeit merchandise could equal that of officially licensed World Cup products - a sum estimated at anywhere between £25m and \$50m (\$80m).

"Companies which have paid a great deal for official World Cup status find that they not only lose revenue but that poor quality fakes undermine the brand names which they have spent years building up," says a security consultant working for a big sportswear company.

Now sportswear manufacturers have joined FIFA - soccer's world body - to stamp out the activities of the counterfeiters.

They are also in close contact with the French authorities, trading standards

officers and the police. "All the major sports brands are acting together to pool our resources and share information on who is producing these fakes," says Mike Roylance, trademark protection manager for Adidas.

Martin Prothero, marketing director for Umbro, owner of the rights to the English and Scottish team kits, said: "We have a full-time person working on brand and merchandise security to find out where this merchandise is coming from. We have to protect the large investment we have made and make an example of those people that are caught."

It is expected most fake products will be sold outside the stadiums in France and from boot sales and from suitcases on shopping streets. Most trade is likely to be in T-shirts, said Mr Prothero. "They are fairly easy to knock up, although in the last few days we have found some fake England jerseys

that were very, very good copies."

John Anderson, secretary-general of the Anti-Counterfeiting Group, which represents manufacturers in the UK and is allied to similar organisations around the world, said: "The market for counterfeit products is estimated to be worth £1bn a year in the UK. Fake clothing and sportswear is growing particularly fast."

Many of the counterfeiters are based in China, south-east Asia, the Czech Republic, Ireland and the UK.

"Unfortunately, a lot of fakes are made here in the UK because we have a tradition in textiles - it is particularly centred in the Midlands and the north-west (in England), and an experienced sewing machine operator can sew 300 fake logos on to clothing a day," Mr Anderson added.

Nike says that "although there may be some fake Nike shirts around football grounds in France, the technology we use means that any fakes won't have the same feel and the same quality as the real thing".

Generators urged to sell 20% of capacity

By Robert Peston, Political Editor

National Power and PowerGen are being asked by the government to dispose of about 20 per cent of their power generating capacity as part of a reconstruction of the coal and electricity generating industries. Geoffrey

Robinson, the paymaster general (a junior Treasury minister), is drafting a complex deal which may save the 5,000 mining jobs.

The government will claim the package is designed to benefit consumers. The two privatised power generators are understood to be resisting pressure to sell plant,

which Mr Robinson believes is essential to stimulate competition.

But the companies are close to signing contracts to buy millions of tonnes of additional coal from RJB Mining, the UK's leading deep mine company. "We are confident this will protect mining communities," said a

government member.

The main incentive for them to buy additional coal will be a government ban on the construction of gas-fired plants for the next three to five years. "What we are doing is eliminating a source of future competition to PowerGen and National Power," said a government

member. Ministers will insist that their aim is to limit support for coal to a few years.

The block on gas fired power stations will outrage international groups. They will claim it will cost the nation inward investment.

Law, Page 14

EU supports high-tech venture capital funds

By Brian Green in London

Three venture capital funds backed by the European Union and totalling £240m (\$390m) were unveiled yesterday by Gordon Brown, chancellor of the exchequer. They will support small and medium-sized businesses particularly in high-technology sectors such as computers, biotechnology, electronics and communications.

The largest, a £120m development fund for the English regions set up by Baring Private Equity Partners in collaboration with its Dutch parent, ING, and the European Investment Bank, is planned as a model for similar funds.

The second is a £100m fund launched by Advent, the British venture capital company, aimed at start-up and early stage high technology companies, particularly

in healthcare and information technology. This fund, including £7.5m from the European Investment Fund, will invest 80 per cent in the UK and the remainder in the rest of Europe.

The chancellor also said Midland Bank and the EIB were raising £20m to support a network of Midland enterprise funds. All three plans would provide capital "to convert ideas into new products and services and help small companies grow into large businesses".

The announcement was made at a conference on venture capital in London, hosted by Mr Brown as part of the UK's presidency of the EU. It heard international speakers including Dominique Strauss-Kahn, the French finance minister, and Mario Monti, the EU commissioner. Mr Brown warned that too many European

entrepreneurs' ideas failed to come to market.

"The challenge for Europe is to create a far stronger venture capital industry and to orient it where we can to high risk in high technology, to early stage and start-up companies," he said.

In the UK, less than 30 per cent of venture capital funds went into high-technology sectors compared with 70 per cent in the US. Only 18 per cent went into start-up and early stage companies, while it was 40 per cent in the US.

The Baring, English Growth Fund aims to invest sums of between £400,000 and £3m in up to 75 companies over 10 years. Baring believes there is a gap for investment in companies with three to five years of growth potential before they seek a market offering.

Law, Page 14

how to spend it



smoke screens, vocal queens, stealing scenes

Brit-prop art and the new furniture high-fliers, the murky world of the bogus stogie, and why opera in the countryside could become a no-go aria. All in how to spend it colour magazine, free with the Weekend FT next Saturday.

FINANCIAL TIMES
No FT, no comment.

Gilt an

Something always seems to keep open the wounds of the second world war. Last week it was the controversial visit to Britain by Japan's Emperor Akihito. Now, it is two new studies on economic collaboration by neutral countries with Nazi Germany, which have complicated the already tangled negotiations between Switzerland and the US over compensation for the activities of Swiss banks during the war.

Historians have to take their time. But it is unfortunate that the US State Department's archives took a full year to produce yesterday's study on industrial collaboration by wartime neutral European countries. This follows their first highly critical report 12 months ago on the key role of the Swiss central bank and commercial banks in laundering looted Nazi gold.

Inevitably, their latest report puts Swiss behaviour into context, without excusing it. It highlights the symbiosis between the neutrals' contributions to the Nazi war machine. Without the iron ore, chrome and armour-hardening tungsten from Sweden, Spain, Portugal and Turkey, the gold laundered through Switzerland would not have been much use to the Nazis, and vice versa.

An Afri

The African Development Bank is in a quandary. It has put its financial affairs in order, but has yet to find an effective role. It contributes little to the debate of the continent's debt, breaks a new ground on development strategies, and its economic appraisals are bland.

Omar Kabbaj, the bank's president since 1986, inherited a portfolio with bad loans and a poor repayment record. He deserves praise for putting the bank back on a sound footing. He has overhauling, won approval for 35 per cent increase in the bank's capital base, and ended a wrangle between African and non-African members over voting rights.

The bank recovered its Triple A rating, but it lost sight of its development role and is too cautious.

Only blue chip projects and taken by safe and secure countries win ADB backing. The result is that 38 of its 50 members do not meet the bank's lending terms. Yet most of the countries in need of ADB support are by their nature risky, such as Congo or Liberia.

It is difficult for the bank to break ground that is not already covered by the World Bank. It can make a greater mark should give cross-border regional development projects higher

NEW YORK GRAND OPERA AND LA GRAN SCENA

Falsettos step into the limelight

Martin Bernheimer compares the glitz at the Met with two pleasantly bizarre operatic operations

Opera isn't exactly a progressive art in the centre of America's cultural universe. The mighty Metropolitan has made conservatism a way of life for so long that even a timid, relatively isolated attempt to acknowledge contemporary staging techniques creates shocks of horror and waves of derision. For many New Yorkers, opera still means Grand Opera.

The campaign for adventure is waged with a bit more spirit next door at Lincoln Center, where the New York City Opera plies its less glamorous trade. With an imaginative new administration firmly in place, optimism runs high. Still, the City Opera budget remains severely limited, and caution remains a key to survival. For better or worse the Met is still the

ultimate national symbol - and national measuring stick - of operatic achievement.

All this came sharply into focus with the recent debut of Robert Wilson, who brought his modernist sensibilities to bear upon Wagner's *Lohengrin*. Anyone familiar with Wilson's work knew what to expect: subtle lighting effects, a virtually empty stage, ritualised movement, and abstraction of the drama. Although one certainly could argue that Wilson's expressive style did not invariably accommodate Wagner's, the introduction of an alternative perspective seemed both stimulating and healthy. A noisy segment of the audience booed Wilson lustily on opening night, and the storm of controversy that followed the premiere was starting. The mainstream

New York press, not notably analytical or sympathetic in matters of operatic adventure, fanned the flames of discontent. Reactionary voices in the community yawned. Sophisticates yawned.

The fuss was engaging, in its oddly provincial way. It would be a gross mistake, however, to regard events in and around the glitzy Met as the only manifestations of significance in operatic New York. Some of the most enlightened demonstrations of avant-garde come from the least pretentious, least predictable sources.

For instance, two pleasantly bizarre examples are a mini opera-company called La Gran Scena, populated exclusively with men and built around the extraordinary talents of a doty declining diva named Vera Galupe-Borsich, which

is about to make its belated debut at Lincoln Center; and an underground publication called *Parterre Box* which continually offers extraordinarily erudite, outrageously subjective criticism to a select

audience in tribute to a time "when opera was queer and dangerous and exciting."

La Gran Scena is the brainchild and performing vehicle of Ira Siff, a self-proclaimed opera-maniac who, back in 1981, happened to find an heroic prima-donna temperament - and a soaring soprano to match -

trapped in a man's body. His body. He and his merry falsetto band have been tramping about the globe ever since, winning equal accolades from inveterate connoisseurs and casual outsiders.

London first made their acquaintance at the Bloomsbury Theatre a decade ago and the ensemble is better known, perhaps better understood, abroad than in the US. The

invitation from Lincoln Center represents something of a rite of passage, an acknowledgement of respectability. Siff & Co.

adore opera, its mannerisms and its mores. They understand the quirks, and most important, respect the delicate line that separates elegant satire from vulgar spoof.

At Alice Tully Hall tomorrow, they will whoop their virtuosic way through the Ho-Jo-to-hos of Wagner's *Valhalla*, then puff through the smoldering Cigarette Chorus of *Carmen* as prelude to excerpts from *Traveller, Bohème, Aida* and *L'Italiana in Algeri*. The climactic presentation will be a La Scena specialty: act two of *Tosca*. When Siff, in

the ridiculously comely guise of Mame Galupe-Borsich, sings "Vissi d'arte," the tormented heroine's plight is defined with genuine urgency, and with seamless legato phrases, a shimmering pianissimo and resplendent top notes. In context it is funny, of course, but it is strangely touching at the same time.

James Jorden, publisher, chief writer, head typist and principal stapler of *Parterre Box*, explains the impact. "Siff," he says admiringly, "sings just as straight as his voice will allow." It was Siff and his *court* success that inspired Jorden, himself a would-be falsettist, to leave not-so-cosmopolitan Ennis, Louisiana, to seek infamy and fortune in New York.

By day, Jorden works as a computer-support specialist at one of the city's major hospitals. At night, on weekends, this mild-mannered Dr. Jekyll gaily turns into several Mr. Hyde. Taking the name of La Cieca, the old blind mother of *La Gioconda*, he writes flamboyant reviews

for *Parterre Box*. As Dr. Repertory, he assumes a more scholarly guise. As James Jorden, and occasionally as Opera Head, he becomes a ubiquitous, fiercely argumentative, always well-informed voice exchanging wit and wisdom, barbs and insults with other fanatics on the Internet.

Jorden's anti-establishment attitudes can be abrasive. The Met management has objected both to his attire (he has frequented standing-room in non-festive leather and tattered jeans) and his distribution methods (he has stuffed copies of *Parterre Box* into official Met brochures). It is not known how the administration assesses his vastly iconoclastic, often persuasive essays.

La Gran Scena enlists serious singers who happen to do amusing things, not comedians who happen to sing. *Parterre Box* masks wise criticism with silly palaver. James Jorden explains the connection handily: "The humour is a vehicle for truth, not an end in itself."

Sadler's Wells puts its best foot forward

The curtain will rise on London's new lottery funded home for dance and international touring companies in October, reports Antony Thorncroft

The first major arts lottery project to be completed in London, the total rebuilding of Sadler's Wells Theatre in Islington, is on target and within budget. It was confident enough yesterday to announce its opening programme.

It plans to raise the curtain on October 12 with a specially commissioned ballet from choreographer Christopher Bruce danced by the Rambert Dance Company. The £48m development received £38m from the arts lottery fund, and has raised £8m from private and corporate sources, with a further £2m pledged. The main feature of the new theatre is a glass exterior wall which will change colour depending on the type of performance on show - flaming red for flamenco, perhaps, cool white for classical ballet.

Sadler's Wells will remain predominantly a dance house, but opera and the lyric theatre will also be presented there. The transformation of the building, spearheaded by chief executive Ian Albery, was designed to give London a purpose built dance space. The stage of the old Sadler's Wells was too small, and major international dance companies refused to perform there.

After a week of Rambert, the Royal Ballet takes up residence, returning to the theatre where it was founded in the 1930s. For a year it will regard Sadler's Wells as its home-from-home while the Royal Opera House Covent Garden undergoes its lottery funded, £214m refurbishment, which



Flaming red for flamenco, cool white for classical ballet: artistic director Nigel Hinds outside the striking glass exterior of the renovated theatre

should be completed by December 1999.

Also appearing in the first season, devised by artistic director Nigel Hinds, will be the equally peripatetic Royal Opera, from December 10 to January 16 1999, with performances of Smetana's *The Bartered Bride* and Rimsky-Korsakov's *The Golden Cockerel*. Ballet Frankfurt, La Coudra de Sevilla, (with a flamenco version of *Carmen*); Sankai Juku from Japan; Birmingham Royal Ballet; Northern Ballet Theatre and Green Candles are also on the schedule for Sadler's Wells opening season, which will be sponsored by the Prudential.

The new Sadler's Wells will have 1,600 seats, slightly more than the old house. But it is completely transformed back stage, with state-of-the-art lighting and sound systems. In the auditorium it will be possible to lower a screen to shield off the gallery, creating a cozier feel for less popular works. There is also a small studio, the Lilian Baylis, with 200 seats, and the management will continue to promote dance at the Peacock Theatre, its London home for the past two years.

Its completion is topical at a time when the whole provision of opera and dance in London is under scrutiny through the Eyre report, which has just landed on the desk of culture secretary Chris Smith.

Eyre talked to Ian Albery and is believed to have included Sadler's Wells in his recommendations. It would be an ideal venue for chamber opera as well as dance. But Albery would be reluctant to hand over his new, solvent, theatre as part of a rescue package for Covent Garden and the Coliseum.

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trapped in a man's body. His body. He and his merry falsetto band have been tramping about the globe ever since, winning equal accolades from inveterate connoisseurs and casual outsiders.

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THEATRE GREEK TRAGEDIES IN SYRACUSE

Furies unleashed by the gods again

The ancient Greek theatre in Syracuse, Sicily, was one of the jewels of the classical world: even today, awash with curious backpackers and rowdy parties of schoolchildren, it retains an air of evocative tranquillity which automatically grants any production mounted in its large arena. Almost in defiance of the gossamer of these surroundings, the organisers of this year's biennial festival of classical drama chose to open with one of the most unsettling works in the ancient repertoire: Euripides' *Bacchae*, a play of such comic violence that the solemn elegance of this arena is all but forgotten.

Walter Pagliaro's production for the city's National Institute of Ancient Drama rightly focuses on the tribal nature of this bleak drama. Four African percussionists hover in the background, occasionally swooping to centre stage to incite the crowd's Dionysian fury, otherwise providing an alternative chorus of insistent battery to remind us of the deep, primal forces at work here.

These are unleashed by Paolo Graziosi's proud, malevolent Dionysus, voiced by the arrogance of the upstart king Pentheus and determined to drive his cruel lesson home to the citizens of Thebes. Piero Di Iorio's Pentheus, all fidgets and nervous drags of his cigarette, is a tyrant already on the skids: his troops might stamp bullishly in their first world war greatcoats and steady shields, but he knows that his control is slipping to the furies unleashed by the disguised god.

A giant cube of transparent plastic panels is Pentheus's castle: in an inspired piece of set design, these fall apart to the (fortuitous?) winds whipping round the theatre as the revelries reach their frenzied climax. Order finally gives way to the caprices of the insatiable new god. The final scenes of *Bacchae* are among the most horrific in all theatre, and they are given due weight here: Pentheus's mother, Agave (Micaela Esdra), arrives in ecstatic triumph with the head of a beast she has slaughtered. She sucks the hot blood from every orifice, places the lifeless head in

a bowl, begins to lay the table; only gradually is she brought out of the trance and brought to realise that the beast was her son, a final coup de theatre of incomparable savagery engineered by the merciless Dionysus.

It is almost impossible to underplay events of such ferocity: they are mostly rendered with great power in this vibrant production, but I remained mystified by the zebra crossings and concrete bollards in the foreground of the action: the traffic

The final scenes of 'Bacchae', among the most horrific in all theatre, are given due weight here

passing through this torrid story is surely too heavy for such whimsical symbolism. Another work by Euripides, *Heccabe*, is being shown in rotation with *Bacchae*. It is a more formal play, set in the limbo of post-war Troy, where the Greeks are waiting to take their triumphs home but find themselves frustrated by the absence of winds to carry their boats.

A sullen, desolate chorus in post-punk costumes, and shards of corrugated iron scattered at the side of the stage add to the general air of post bellum disorientation; all emotional resonance is provided by Valeria Moriconi's performance in the title role, which successfully navigates between the extremes of dignity and despair, helplessness and vengeance. Daniele Griggio (Ulysses) is splendidly aggressive in a nasty Desert Storm combo and shades; Arnaldo Ninchi's Agamemnon is a little insipid, but then he has plenty of worries to attend to when he returns to his native land.

Peter Aspdon

Bacchae and *Heccabe* play on alternate nights at the Teatro Greco, Syracuse, until June 28.

INTERNATIONAL Arts Guide

AMSTERDAM

OPERA
Netherlands Opera, Het Muziektheater
Tel: 31-20-551 8911
Siegfried: by Wagner. New production conducted by Hartmut Haenchen in a staging by Pierre Audi; Jun 5, 9

BADEN-BADEN

OPERA
International Festival
Tel: 49-711-780 4166
The Royal Opera: Die Agyptische Helena, by R. Strauss. Christian Thielemann conducts a production starring Deborah Voigt in the title role, with Reiner Goldberg and Lyuba Kazanovskaya, on the opening night of the festival, in the new Festspielhaus; Jun 6

BERLIN

CONCERTS
Konzerthaus
Tel: 49-30-203030
Berlin Symphony Orchestra: conducted by Vassilij Sinaïskij in works by Stravinsky and

Tchikovsky; Jun 4, 5, 8
● Deutsche Symphonie-Orchester Berlin: conducted by Vladimir Ashkenazy in a programme of works by Mozart. With flute soloist Martin-Ulrich Sann and harpist Nina Schlemm; Jun 8

● International Chamber Orchestra: conducted by Nikolaus Harnoncourt in works by Mozart and Handel. With Contraltus Musicae and soprano Sylvia McNair; Jun 9
● Rundfunk-Sinfonieorchester Berlin: conducted by Alan Gilbert in works by Karman, Mozart and Copland, with clarinet soloist Sharon Kern; Jun 3

Philharmonie
Tel: 49-30-2548 8354
● Berlin Philharmonic Orchestra: conducted by Lorin Maazel in works by Maazel and Mahler. With cello soloist Rostropovich; Jun 5
● Berlin Philharmonic Orchestra: conducted by Lorin Maazel in works by Strauss and Wagner; Jun 9

OPERA
Deutsche Oper
Tel: 49-30-34384-01
Memor: by Massenet. New production conducted by Jiri Kout in a staging by Cesare Lieva. With sets by Margherita Palli and costumes by Luigi Perego; Jun 7

BOLOGNA
OPERA
Teatro Comunale
Tel: 39-51-523 993
www.teatrocomunale.it
Don Giovanni: by Mozart. New

production conducted by Daniele Gatti in a staging by Gianfranco de Bosio, with designs by Pasquale Greco; Jun 8

FLORENCE
OPERA
Maggio Musicale Fiorentino
Tel: 39-55-211158
www.maggiomusicale.it
Wozzeck: by Berg. New production by William Friedkin, conducted by Zubin Mehta; Teatro Comunale; Jun 3, 5, 8

GLASGOW
OPERA
Scottish Opera, Theatre Royal
Tel: 44-141-332 9000
The Queen of Spades: by Tchaikovsky. Conducted by Richard Armstrong in a staging by Yannis Kokkos; Jun 3

production conducted by Daniele Gatti in a staging by Gianfranco de Bosio, with designs by Pasquale Greco; Jun 8

LONDON
CONCERTS
Barbican Hall
Tel: 44-171-638 8891
London Symphony Orchestra: conducted by André Previn in works by Copland, Barber and Gershwin; Jun 7

EXHIBITIONS
Royal Academy of Arts
Tel: 44-171-500 8000
Summer Exhibition: held every year since the Academy's foundation in 1768, the world's largest open exhibition displays work by established painters and sculptors alongside that of younger and less well known artists; to Aug 16

Tate Gallery
Tel: 44-171-587 8000
Lucian Freud: Some New Paintings. More than 20 recent works, many of them completed during the last year and never before publicly exhibited in Britain. Includes characteristic, large-scale studio nudes, and portraits of the artist's daughters; from Jun 3 to Jul 26

GLYNDEBOURNE
OPERA
Glyndebourne Festival Opera
Tel: 44-1273-815 000
● Così Fan Tutti: by Mozart. New production by Graham Vick, conducted by Andrew Davis. Cast includes Alan Ople and Barbara Frittol. With the London Philharmonic Orchestra; Jun 4, 5, 9
● Katya Kabanova: by Janáček. Revival of Nikolaus Lehnhoff's production, conducted by Yakov Kreizberg, with designs by Tobias Holtheist. With the London Philharmonic Orchestra; Jun 3, 5, 7

HELSENKI
OPERA
Barbican Theatre
Tel: 44-171-638 8891

FINNISH NATIONAL OPERA
Tel: 358-9-4030 2211
Siegfried: by Wagner. Conductor Leif Segerstam, director Götz Friedrich and designer Gottfried Fritz continue their collaboration on the Ring with this new production. The title role is sung by Stig Andersen; Jun 5, 8

English National Opera, London
Coliseum
Tel: 44-171-632 8300
● Carmen: David Ritch and John La Bouchardière direct a revival of Jonathan Miller's production, conducted by Noel Davies; Jun 3, 5
● Manon: by Massenet. New production by David McVicar, designed by Tanya McCallin. Rosa Marston sings the title role and the conductor is Paul Daniel; Jun 4, 6

MILAN
OPERA
Teatro alla Scala
Tel: 39-2-58791
www.lascala.milano.it
Manon Lescaut: by Puccini. Production by Uliana Cavani, conducted by Riccardo Muti; Jun 5, 8

MUNICH
CONCERTS
Philharmonie Gasteig
Tel: 49-89-5431 8781
Munich Philharmonic Orchestra: in chamber music by Barrios, Haydn, Boccherini, Dragonetti, Rossini, Weber and Mozart; Jun 7

PARIS
CONCERTS
Salle Pleyel
Tel: 33-1-4561 5559

NEW YORK
EXHIBITIONS

Guggenheim Museum
Tel: 1-212-423 3500
www.guggenheim.org
China - 5,000 Years: highlights include Neolithic jades, Shang and Zhou bronzes, tomb ceramics, and a collection of Buddhist stone sculptures; to Jun 3, then transferring to Bilbao

Metropolitan Museum of Art
Tel: 1-212-879 5500
www.metmuseum.org
● Pierre-Paul Prud'hon (1758-1823): first American retrospective of work by the French court painter and draftsman, who won acclaim during the years spanning the Revolution, the Empire and the Restoration for his allegories and portraits. Includes 60 paintings and 100 works on paper; to Jun 7

Museum of Modern Art
Tel: 1-212-708 9480
www.moma.org
Bonnard (1867-1947): transferring from London's Tate Gallery, this major retrospective comprises over 100 paintings. Includes landscapes, still lifes, a series of nudes, and several self-portraits; to Oct 1

TV AND RADIO
● **WORLD SERVICE**
BBC World Service radio for Europe can be received in western Europe on medium wave 648 kHz (463m)

● **CNN International**
Monday to Friday, GMT:
06.30: Moneyline with Lou Dobbs
13.30: Business Asia
19.30: World Business Today
22.00: World Business Today Update

● **Business/Market Reports:**
05.07; 08.07; 07.07; 08.20; 09.20; 10.20; 11.20; 11.32; 12.20; 13.20; 14.20.

At 08.20 Tanya Beckett of FTV reports live from Liffé as the London market opens.

Orchestre de Paris: conducted by Sylvain Cambiére in works by Beethoven and Mahler. With soprano Françoise Pollet; Jun 3, 4

Théâtre des Champs Elysées
Tel: 33-1-40525050
● Orchestre de Paris: conducted by Louis Langrée in works by Schubert and Fauré. With soprano Ruth Ziesak and baritone Stephan Genz; Jun 8
● Orchestre des Champs-Elysées: conducted by Philippe Herreweghe in works by Berlioz and Schumann. With mezzo-soprano Brigitte Balleys; Jun 5



LIONEL BARBER
EUROPEAN VIEWPOINT

Germany first

Kohl's struggling re-election campaign highlights a shifting attitude among Germans fed up of being 'good Europeans'

There is a whiff of desperation about Chancellor Helmut Kohl's re-election campaign in Germany. The rest of Europe would be unwise to ignore it.

In normal times, Mr Kohl would have strode clear of the image merchants and run on his record as Europe's premier statesman. These are not normal times. The chancellor has just appointed a new media team, including a former Bild newspaper editor known as Rambo. His other nickname is *Der Plattmacher* - the Great Simplifier.

In short, Mr Kohl is in deep trouble. His centre-right liberal coalition is coming apart. After 18 years in power, the fractiousness is reminiscent of the dying days of the British Conservative government; so is the thuggish rhetoric against Brussels and the European Commission.

Welcome to the new populism in Germany. What makes it dangerous is that it coincides with a shift in the intellectual debate, especially among a policymaking elite seeking to redefine German national interests in a more economically and politically integrated Europe.

The shift in attitudes goes beyond questions of Germany's contributions to the European Union budget, of which more in a minute. It involves above all a re-examination of the distribution of power between Brussels, Bonn and the German Länder. In each case, the idea that Germany is getting a raw deal is spreading.

In the past, Germany could be relied upon as a staunch defender of free market principles and an independent competition authority in Brussels. But

last year, Kurt Biedenkopf, prime minister of Saxony, declared that the rules did not apply when it came to subsidies to the profitable carmaker Volkswagen to create jobs in former east Germany. Now Bonn has declared open season on Karel van Miert, the EU's competition commissioner.

Take the manoeuvring over the proposed digital pay-TV joint venture between Leo Kirch, the secretive media mogul and chum of the chancellor, Bertelsmann, the international publishing group, and Deutsche Telekom.

Mr Kohl himself lobbied on behalf of the deal. The word is that he threatened Jacques Santer, the European Commission president, with "all-out war" if Brussels dared to block it. Last week, Bertelsmann walked away at the last minute, allowing all sides to save face.

Bertelsmann-Kirch is a case study in the cronyism-cum-corporatism of modern Germany. It was,



Deep trouble: Kohl's coalition government is coming apart

says one senior Commission official, an attempt to lock up the German market against outside predators such as Rupert Murdoch; an exercise in German industrial policy writ large.

On a smaller scale, regions such as Bavaria, Lower Saxony (home of Gerhard Schröder, the SPD's candidate for chancellor) and North Rhine Westphalia are also running their own industrial policies. Each is struggling against high unemployment and the need to cope with the increasing competition of the single market and a future single currency zone. But the price is more scrutiny from the Commission as guardian of the single market.

The more active role of the commissioner as chief enforcer of EU rules does not fit the old German view which, put crudely, saw Europe as a political project that prevented war in western Europe and balanced the free circulation of German industrial goods with the protection of French farming interests.

This view is as outdated as the Common Agricultural Policy. Indeed German policy toward Europe in general is riddled with contradictions as the country struggles with the challenges of German unification, globalisation and enlargement of the EU to central and eastern Europe early next century.

Thus, Bonn champions eastern enlargement, but insists that no new money is made available and that freedom of movement for workers from eastern Europe will require a long transition period, perhaps 10 years or more.

Mr Kohl's ministers complain that Germany pays almost one-third into the EU budget but draws out less

than anyone else in terms of regional aid and farm subsidies. Hence the daily demand for an improvement in Germany's "net contribution" to Brussels.

In two weeks' time, at the EU summit in Cardiff, Mr Kohl is expected to demand a solemn commitment from his fellow leaders that Germany's net contribution will be reduced. He may even press for a UK-style rebate, at the risk of provoking a row with Spain and other southern countries which are intent on protecting their own net position and which view eastern enlargement as favouring German strategic interests.

The British Foreign Office says it is related. Some officials have been heard to say that a German-led argument over money might even be helpful because it would underline the British case for budget discipline. This is extremely short-sighted.

It serves no one's interest to fracture the north-south consensus on enlargement. There are plenty of countries willing to use any excuse to slow down enlargement without British encouragement. Mr Kohl is so weak that he can no longer be relied upon to make the moral, political and strategic case for early EU expansion eastwards.

Twelve months ago, many commentators predicted that Mr Kohl risked losing the general election campaign because of his decision to abandon the D-Mark for the euro. This may still be true, but not in the way some imagined.

The SPD has discovered that the path to power does not lie in a "Save the D-Mark" campaign. Instead, Mr Schröder has conducted a more insidious attack, suggesting the chancellor has sometimes put Europe first and Germany second.

For more than a generation, the Germans have always argued that these are false dichotomies, that the interests of Germany and Europe merge imperceptibly into a wider whole.

That may be changing. The lesson of the campaign of '98 is that German national interest are no longer dirty words.

LETTERS TO THE EDITOR

Investigation must be reactivated to counter Kabila's delaying tactics

From Mr Gordon Martin.

Sir, In your excellent leader, "Kabila's failure" (May 27), you refer to the president of the Congo's refusal to co-operate with the United Nations investigation into the allegations of mass killings of Hutu refugees last year, and you voice approval of the withholding of international aid "until he complies".

Unfortunately, there is no longer any UN investigation in progress. Roberto Garretón, the Chilean special rapporteur for Congo of the UN Human Rights Commission, first drew attention to the reported mass killings early last year. He was then blacklisted by Mr Kabila, and banned from entry to Congo.

The UN secretary general,

Kofi Annan, in what to many people (me included) looked like appeasement of Mr Kabila, sidelined Mr Garretón and last August sent in his own three-member investigative team, headed by former Togolese chief justice, Atsu-Koffi Amega. Though in theory the composition of this team had been previously approved by Mr Kabila, they met with continuous obstruction in Kinshasa, and literally got nowhere.

After eight months of this fruitless and costly exercise, Mr Annan acknowledged its futility and withdrew the team.

Mr Garretón's mandate was recently renewed for one year by the Human Rights Commission, but it

does not specifically include investigation of the alleged killings.

Furthermore, Mr Garretón has not been allocated either the financial or technical support to carry out such a mission. Unless some new mechanism is set up to look into the alleged killings, Mr Kabila's delaying tactics will have clearly paid off. It is imperative that a credible investigation should be reactivated, before the issue of the killings is obscured by more recent human rights abuses in Congo, and the forensic and other evidence disappears.

Gordon Martin,
11 Rue Videllet,
1202 Geneva,
Switzerland

Lesson in strategy

From Mr Christoph Marloth.

Sir, Professor Gregory Mankiw's score of B for the US justice department's case seems too generous when you consider it is not the government's remit to protect incompetent competitors ("The Microsoft quick quiz" (May 26)). In 1995, Jim Barksdale of Netscape announced that its Navigator browser would make Microsoft's core product Windows obsolete. This was equivalent to declaring war without having a clear plan or the means to fight it.

The correct strategy would have been to offer Microsoft an entry version at nominal cost for inclusion in Windows 95, maximise revenue through upgrades, become a Microsoft solution provider, build an international channel and consulting presence, and slowly infiltrate the operating system and customer space while Microsoft was becoming complacent over its Windows and Office successes.

Rather than breaking up Microsoft in an orgy of government abuse its management team should be forced to lecture business strategy to the rest of the industry.

Christoph Marloth,
Langensgraben 2/5,
81675 Munich, Germany

The sound of the pot calling the kettle black

From Mr S.A. Krishnan.

Sir, Born in the country of the Mahatma (Gandhi), I share the concern of millions at the spread of nuclear capabilities. At the same time I cannot but help being bemused by the reaction of western nations.

The cacophony raised by the various governments, led by the US, are tantamount to the proverbial pot calling the

kettle black. The president of the US and the prime minister of the UK in particular would be well advised to read your editorial of May 29 ("A test for the nuclear club"), especially the last paragraph.

S.A. Krishnan,
22-B, Miramar,
3 Napier Sea Road,
Mumbai - 400 026, India

From Mr Paul Walter.

Sir, How can Bill Clinton's condemnation of the Indian and Pakistani nuclear tests be credible when outside his office there is a marine holding a briefcase capable of triggering the total wipeout of all life on this planet?

Paul Walter,
12 Stanley Road,
Newbury RG14 7PB, UK

Bahrain has enviable reputation in Gulf

From Abdul Aziz Mubarak Al Khalifa.

Sir, Your correspondent Robin Allen's article, "Bahrain economy suffers as Shia dissent simmers" (May 28), provides an unfortunate example of a reporter seeing what he has set out to find.

It is never hard to find critics of any government, but to pass off this determinedly biased and distorted account as a fair and balanced report on the situation in Bahrain does no credit to your newspaper.

Any notion that daily life in Bahrain is driven by unrest and repression would

be quite wrong. It is far easier to live and work there than in any western capital. Bahrain has an enviable reputation in the Gulf for being an open, liberal society. That is why so many foreign businesses choose to be there.

The government knows unemployment is a problem, but to suggest dismissively that it is doing nothing about this is irresponsible journalism. There is no mention in the piece about the initiatives on training, education and job creation, nor the efforts on social housing.

There is a good reason

why Bahrain has, for the third year running, come top among Arab countries in the United Nations' report on human development.

As for the insinuation about corruption, this has more to do with your writer's keenness to "strengthen" his story than any sense of duty to inform your readers.

Abdul Aziz Mubarak Al Khalifa,
Ambassador,
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London SW7 4AU, UK

Number One Southwark Bridge, London SE1 9HL

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PERSONAL VIEW PAUL KRUGMAN

Pity Alan Greenspan

The US Federal Reserve knows what the enthusiastic proponents of a 'new economy' do not - that it should raise interest rates

These are happy times for US economic pundits, but nail-biting ones for its central bankers.

For the past few months the data on the US economy have been unusually obliging - allowing both dour believers in traditional limits to growth and ebullient believers in the new economy to feel confirmed in their faith. But the same data place the Federal Reserve in a bind, indicating ever more clearly what the Fed should do - namely raise interest rates - while making it politically impossible to act on that knowledge.

So far this year, the US economy has continued its winning streak, growing at rates well above the two-point-something that traditional economists regard as its long-term potential, yet with headline measures of inflation, such as the consumer price index, remaining quiescent. So why, ask the New Economy types, meddle with success? Inflation is dead, old limits to growth have been abolished; Alan Greenspan, the Fed chairman, shouldn't raise rates, he should consider cutting them.

But old-style macro-economists look at different numbers. They see an unemployment rate that keeps on declining - good news in itself, but since there must be some lower limit on unemployment, an indication that recent growth rates cannot continue unabated. In fact, the historical relationship between growth and unemployment known as Okun's Law remains intact, suggesting that the economy's potential growth remains less than 2.5 per cent.

To raise that long-run growth rate the economy would have to achieve a sustained increase in the rate at which it raises output per worker, but productivity, after two good years, was dismal in the most recent quarter. Of course those



Greenspan's dilemma: he might wait too long before raising rates.

numbers bounce around a lot, but that is precisely the point: the latest bad news on productivity reinforces the Old Economy view that the previous good news was no more than a routine statistical blip.

Meanwhile, wages are gradually moving into the

red zone, with year-on-year increases at their highest levels since the early 1980s. Among the Old Economy crowd, the story line runs like this: underlying inflation pressures have been building steadily over the past two years, but have been masked by a series of one-time events - the savings in benefit costs due to the shift to cost-conscious health maintenance organisations (HMOs), the decline in import prices as the dollar has surged against the yen and D-Mark, and the slump in world commodity prices

as Asia has plunged into crisis. Sooner or later these special events will end, or even go into reverse. When they do the US will find inflation quite alive. Share prices, which can only be justified if the US economy is poised to begin decades of extraordinary growth, will swoon.

The Fed knows that the economy is running dangerously hot and fears that the longer it waits to cool it the greater the damage. But any rate rise will provoke outraged protests

nonsense because productivity and growth are essentially the same number; if productivity is under-reported, that doesn't mean we can grow faster. It means that we already are growing faster.

The Fed knows that the US economy is running dangerously hot and fears, with reason, that the longer it waits to cool it the greater the damage. However, any rate rise when the headline inflation rate remains so low will provoke outraged protests. The protesters will include not only the usual suspects on the left, but much of the business and financial community, who have become enthusiastic proponents of the New Economy doctrine.

I once heard a Fed official give a talk about the New Economy, which on close listening suggested that he regarded the doctrine as nonsense, but was so wrapped in indirection and euphemism as to be nearly unintelligible. When I talked to him later, he apologised, but explained: "I have to deal with these people every day; I can't say flat out that they're making fools of themselves."

And there is the Fed's problem: it must, indeed, deal with these people every day. To act on what it understands but what they do not, to raise rates when they can see no reason for concern, would be in effect to say that they are fools who do not understand economics. And they would never forgive the Fed and its officials for the insult.

So here is my prediction: the Fed will not act, at least not in any serious way, until the evidence against the New Economy is so strong to be denied - until, in short, the headline inflation numbers are flashing red. And by then, of course, it will be too late.

The author is professor of economics at the Massachusetts Institute of Technology

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Wednesday June 3 1998

Confronting a wobbly yen

Asia badly needs a Japanese economic recovery to help it out of its financial crisis. Yet the yen's recent weakness against the dollar, while offering succour to Japanese manufacturers, simultaneously threatens to destabilise the Asia-Pacific region by provoking further devaluations. Is this a risk that simply has to be lived with? Or can it be managed?

In normal circumstances there is much to be said for Fed chairman Alan Greenspan's view that an exchange rate is a price, like any other. It follows that while the signals of the currency markets should not be ignored, the prime focus of economic management should be the pursuit of sensible domestic policies.

Nothing illustrates this better than Japan's own experience in the 1980s. By according to US demands for a weaker yen, policymakers paved the way for the bubble economy by loosening monetary policy to excess. The country is still suffering from the consequences.

Nor should the threat of Asian devaluations, and especially a devaluation of the Chinese renminbi, be seen out of context. While some economies in the region, most notably South Korea, are sensitive to the yen's fluctuations because they compete directly with Japan, China does not. Rather, it plays host to Japanese companies that have expanded their manufacturing facilities there. So for China, any backwash from a weak yen will tend to come indirectly via the other Asian economies.

That said, there are not normal times. Japan is struggling to stave off deflation. And its policy response has so far been thoroughly inadequate. If the yen has

been endemically weak since mid-decade, it is partly because markets have sensed that the authorities in Tokyo lack the will to address Japan's problems directly.

The latest fiscal package, according to J.P. Morgan's estimate, should add about 1.4 per cent to growth in 1998. Yet this merely serves to help fill the hole created by last year's tax increases. Maintaining a genuinely radical move, the financial Big Bang that started in April, is bound to weaken the yen since it allows investors to escape the paucity of return on Japanese bonds and equities for higher yields in stronger currency countries overseas.

Against that background, the US, which has long urged radical deregulation on Japan, can hardly complain if the Big Bang reforms weaken the yen. Nor does exchange market intervention make much sense. When the banking system is fragile and the corporate sector is weakened by a credit crunch, there is no escape from loose monetary policy. The priority should be to avoid a disorderly yen free-fall.

One contribution the authorities in Tokyo could make to help stave off devaluation in the rest of Asia is to intervene to prop up other weak Asian currencies. But the overwhelming priority must be another big, and better balanced, expansionary fiscal package as soon as possible, complete with permanent tax cuts.

What Japan badly needs is a resumption of private sector growth, to provide the right background for urgently needed structural reforms. On past form, the more likely outcome is half measures, followed by continuing yen weakness.

Gilt and guilt

Something always seems to keep opening the wounds of the second world war. Last week it was the controversial visit to Britain by Japan's Emperor Akihito. Now, it is two new studies on economic collaboration by neutral countries with Nazi Germany, which have complicated the already tangled negotiations between Switzerland and the US over compensation for the activities of Swiss banks during the war.

Historians have to take their time. But it is unfortunate that the US State Department's archivists took a full year to produce yesterday's study on industrial collaboration by wartime neutral European countries. This follows their first highly critical report 12 months ago on the key role of the Swiss central bank and commercial banks in laundering looted Nazi gold.

Initially, their latest report puts Swiss behaviour into context, without excusing it. It highlights the symbiosis between the neutral's contributions to the Nazi war machine. Without the iron ore, chrome and armaments from Sweden, Spain, Portugal and Turkey, the gold laundered through Switzerland would not have been much use to the Nazis, and vice versa.

This fuller picture was not available to Jewish groups and the treasurers of various US states last year when they launched their billion-dollar class action suits and boycott threats against the big Swiss banks. Nor were the US agents aware of the findings of a Swiss-led panel of historians, which last week reported that the Swiss National Bank (SNB) had been well aware of the looting of Nazi gold and that Swiss insurers had been keen to take the bullion to cover their German losses.

As a result of the latter report, the legal actions are gaining fresh momentum. US lawyers will this week file a class action against the SNB, and may soon be coming after Swiss insurers. This may disrupt compensation negotiations already underway between the Swiss banks and US Jewish groups.

Having made a \$870m payment to a Holocaust victims fund, the SNB, backed by the Swiss government, still refuses to become dragged into negotiations with the US. But in the end, the Swiss government will have to get involved, to help the US lawyer and underwrite a global settlement. Time presses, if aged Holocaust survivors are to get compensation.

An African voice

The African Development Bank is in a quandary. It has put its financial affairs in order, but has yet to find an effective role. It contributes little to the debate on the continent's debt, breaks no new ground on development strategies, and its economic appraisals are bland.

Omar Kabbaj, the bank's president since 1995, inherited a portfolio with bad loans and a poor repayment record. He deserves praise for putting the bank back on a sound footing. He has cut overstaffing, won approval for a 30 per cent increase in the bank's capital base, and ended a wrangle between African and non-African members over voting rights. The bank recovered its Triple A rating, but it lost sight of its development role and is too cautious. Only blue chip projects undertaken by safe and secure countries with ADB backing. The result is that 30 of its 50 members do not meet the bank's tough lending terms. Yet most of the countries in need of ADB support are by their nature risky, such as Congo or Liberia.

It is difficult for the bank to break ground that is not already covered by the World Bank, but it can make a greater mark. It should give cross-border regional development projects higher pri-

ority, for a start. It should play a greater part in the development of Africa's infrastructure by encouraging build-operate-transfer strategies for projects such as toll roads and power plants.

Finally, the ADB should be providing an intellectual edge in the debate about development strategies for the continent. It could begin by substituting plain speaking and frank analysis for the bland appraisals that are the hallmark of its annual reports. For example, its analysis of Kenya and Nigeria fail to mention corruption, and thus lack credibility.

The ADB should be leading the way in a campaign against corruption, and for improved governance. It needs to move out of the shadow of the World Bank, and provide an African perspective on the continent's challenges. Africa needs urgently to attract more foreign investment, to compete effectively in the global market. It needs reliable investment in better telecommunications, more efficient financial markets, and better management. Loss-making state enterprises need to be privatised more swiftly. The ADB must make its voice heard on such issues, or face the fact that it has little reason to exist.

Stop-go-stop economy

If Japan is not to sink into a deflationary spiral, the government must act radically. But in the short term, says John Plender, solutions could make the situation worse rather than better

Can Japan summon up the will to escape from incipient depression? The question is a matter of increasing global concern, as a weak yen spreads contagion across Asia and beyond. That concern is unlikely to diminish, for there is no easy answer. All the potential escape routes are fraught with peril, both for Japan and the rest of the world.

Japan's economy is caught in a liquidity trap. The official discount rate has been stuck at a record low of 0.5 per cent, the yield on the long-term benchmark bond is less than 1.2 per cent and wholesale prices are falling. Real interest rates are thus set to rise in a debt-laden economy debilitated by premature fiscal tightening and shock waves from the Asian crisis.

Increasing unemployment, collapsing asset prices and the potential insolvency of the pension system have punctured consumer confidence. And after the failure of Hokkaido Tokai Bank and Yamachi Securities last November, the Japanese have discovered their own low-tech definition of home banking: more money is going into household safe deposit boxes.

This is uncharted territory, says Susumu Taketomi of the Bank of Japan's policy board. With gut instinct driving household expenditure down, he adds, a central banker has to ask whether sociology might not be as useful a guide to policy as economic theory.

The corporate sector, meanwhile, suffers from excess inventories, declining profits and a reduced urge to invest. What growth the economy achieves this year will be wholly dependent on successive fiscal boosts and on export demand, which is weakening.

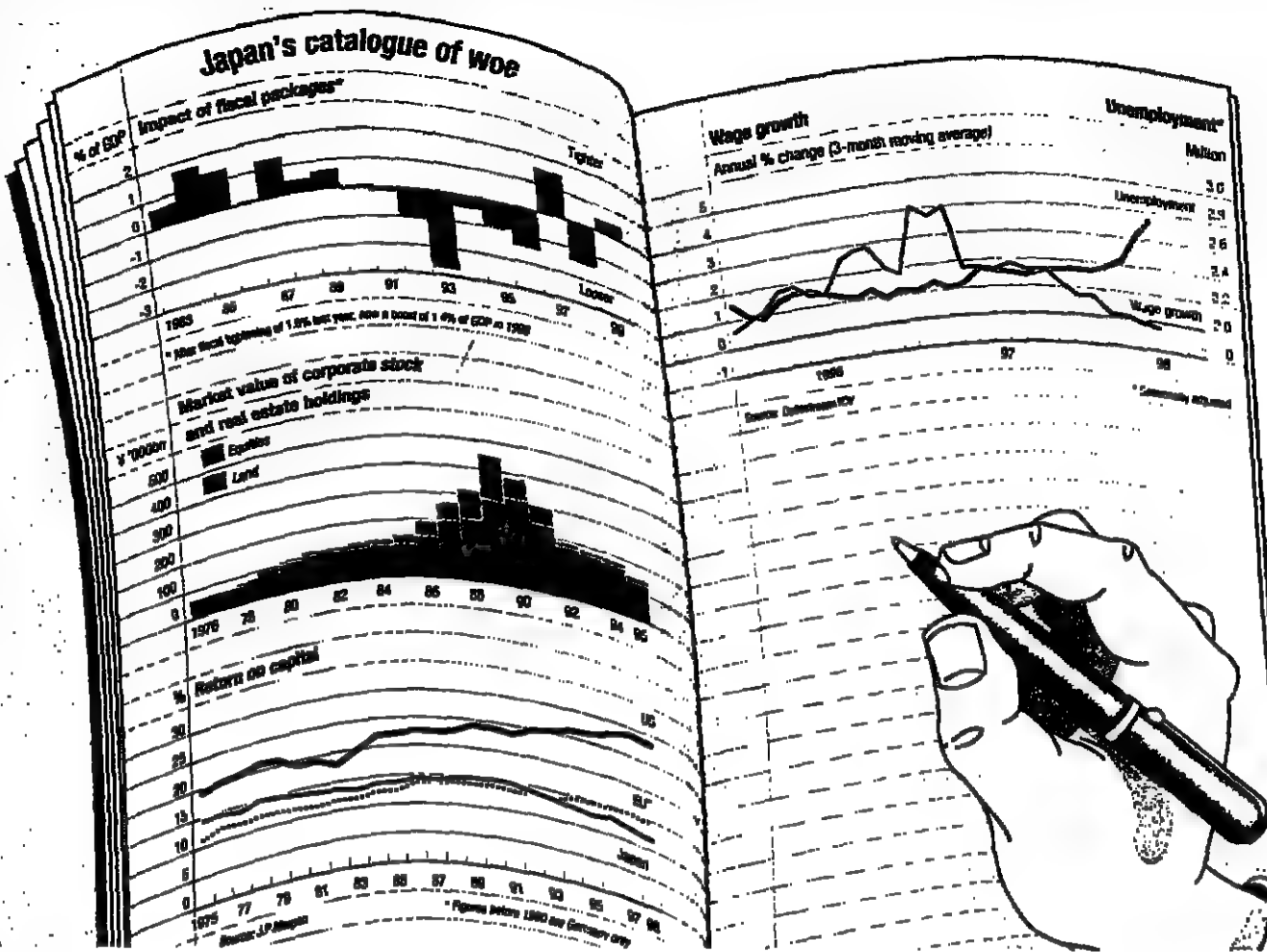
The government's response has widely been judged to be inadequate. Yet to accuse policymakers of paralysis is to underestimate the changes in Tokyo over the past 12 months. The latest ¥16,000bn (¥700bn) fiscal package is not only large; its proposed ¥4,000bn of income tax cuts constitute a big political U-turn.

In announcing a ¥30,000bn package in February to prop up the banking system, equivalent to 6 per cent of gross domestic product, the government crossed another important political threshold.

The authorities have been attacked for advancing capital indiscriminately to strong and weak banks alike. But Washington has become noticeably more amenable on this score, acknowledging the existence of both a systemic threat and a severe credit crunch. Since the summit of the Group of Eight leading industrial nations in Birmingham, US policymakers have also been persuaded that the remedies applied in the US savings and loan debacle are not right for Japan because of the country's more complex property lending and bankruptcy procedures.

That said, economic conditions have been deteriorating faster than policy has been able to respond. And there is a power vacuum. The bureaucratic elite in the Ministry of Finance, beset by scandals and lambasted for past mismanagement, lacks the confidence to act.

Its role in policymaking is being ceded to the politicians, who are more traditionally preoccupied with extracting a bigger



share of the budgetary cake for producer lobbies and constituents. The Liberal Democratic party is gleefully taking vengeance on the Ministry of Finance for allegedly becoming too close to defectors from the LDP earlier in the decade.

The latest fiscal package was thus, uncharacteristically, the work of the LDP, not the MoF. Yet, as the subsequent downward market response suggests, it fell into the usual Japanese pattern of too little, too late. What one top US official calls Japan's "just-in-time" approach to fiscal stimulus was clearly ill-designed for the task of boosting confidence.

And ¥30,000bn does little more than exchange last year's permanent tax increases for temporary tax cuts and provide a boost to public works spending conveniently timed to impress voters before the upper house elections in July. The multiplier effect will be weak because the scope for efficient infrastructure spending in the post-bubble Japanese system has been largely exhausted.

As Drazen Kleinwort-Simon strategist Peter Tasker puts it, the country is coming perilously close to the extreme Keynesian remedy of burying money in a hole in the ground and letting people dig it out.

This kind of fiscal stop-go inevitably leads back to stop in the absence of private-sector recovery. Hence calls from leading LDP as well as opposition politicians for permanent tax cuts after the elections. A review of taxes is also promised, which will probably recommend reductions in headline rates of income and corporation tax. More assistance for the banks is to be discussed by the LDP in August.

Yet there is growing talk in Tokyo, and among US economists, of a monetary alternative to confront the deflationary psychology. Why not, runs the argument, resort to outright money

creation by having the BoJ purchase bank assets in exchange for cash, thereby raising inflationary expectations and reducing real interest rates?

So far, the BoJ has stopped just short. The chief impediment behind its near 60 per cent balance sheet expansion over the past year has been a leader-of-late-resort operation in which it has sold short-term paper to stricken banks in exchange for longer-dated government bonds. This followed Sanyo Securities' default in November, which caused the interbank market to dry up.

But on the BoJ's policy board the economist Kazuo Ueda has been arguing for a monetary target, either for inflation or base money. While in normal circumstances such a target would help curb inflation, it would have the opposite effect, he says, if the general price level was falling. To meet the target the BoJ would need to monetise on a large scale.

Japan is coming close to the extreme Keynesian remedy of burying money in the ground and letting people dig it out

This would also indicate to the public, says J.P. Morgan economist Jasper Koll, that yen left under the mattress or in the postal savings bank would be worth less in a year's time.

The snag is the wider context. If monetary expansion put the yen into free fall before the new fiscal package had time to take effect, the odds on more competitive devaluations, perhaps extending to China, would rise. The inflationary implications of

monetisation could also precipitate a bond market collapse, which would exacerbate Japan's banking crisis.

While there are advocates in the BoJ for a new approach to monetary policy, notably Mr Ueda, his fellow members on the policy board may not be ready for such a move. The last published minutes, relating to the April meeting, show that some members did not take seriously the threat of generalised deflation, seeing only a relative price fall in commodities.

Among those on the board who do acknowledge the threat, Mr Taketomi is probably not alone in hoping that expeditious implementation of the fiscal package will pre-empt a decline in prices. The board's rejection of arguments for an interest rate cut at the May meeting suggests, too, that a majority is not yet ready for crisis measures.

None of this, however, addresses the real problems on the supply side of the economy. These, argues Brian Reading of Lombard Street Research, are rooted in Japan's propensity to save more than it invests. In the past, the country has closed the gap between savings and investment either by allowing surplus savings to be absorbed by a current account surplus, or by offsetting the surplus via government dis-saving. The first approach, however sound in economic terms, falls on deaf ears in the US Congress, which has never acknowledged Japan's role in financing US spending habits.

At the same time, government dis-saving cannot continue indefinitely because of the impact on public finances. That leaves structural solutions, whether to increase investment, or to reduce saving by raising consumption.

The difficulty is that long-term structural changes exacerbate the short-run macroeconomic

problems. In Japan's period of high growth, the inefficient use of capital did not much matter, says Mr Tasker, because there was always more capital to throw at any problem. But in a mature, low-growth economy - only partly insulated by Japan's creditor status from the pressure of global capital markets - it is painful for debt-constrained companies to move from maximising earnings per worker to increasing savings per share.

Mr Koll of J.P. Morgan points out that the reluctance to cut labour costs even in extremis has led to a higher level of bankruptcy debt, at 2.5 per cent of GDP, than the US has seen since 1945. Even in the troubled areas of banking and insurance, he adds, employment has actually been increasing - this despite the onset of Japan's Big Bang.

Yet if industry does restructure, job losses will encourage additional precautionary saving. A more productive use of capital will lead to a reduction in the present high level of investment. So, too, with attempts to raise consumption by deregulating markets, in a country where unemployment benefits are a breadwinner, the employment-generating capacity of the very inefficient construction and distribution sectors provides the main welfare safety net.

Nobumitsu Kagami, a professor at Sophia University, forecasts that unemployment in the Japanese economy could rise from today's 4.1 per cent to 10 per cent within three to five years. Yet social security policy, he adds, remains blithely rooted in the assumption of full employment.

The conclusion must be that while this year's fiscal packages will buy time, they will not solve the underlying structural problems. For both capital and labour there are very painful adjustments yet to come.

OBSERVER

Active Investor

Percy Barnevik's "quiet revolution" at Investor, the Wallenberg's main investment vehicle, is becoming a little noisy. Not content with internationalising the boards of investor companies and sorting out the laggards in the portfolio - like the plan to float Saab - he is creating the world's biggest forest products company with the merger of Stora and Enso.

In the process, Björn Hägglund, who took over as chief executive of Stora in March from Lars-Ake Helgesson, is finding out how little say a boss in the Wallenberg sphere can have in his company's strategy.

During the spring, Hägglund told anyone who would listen that mergers were not high on his agenda because "among forest products companies there is no apparent connection between size and return".

His strategic view didn't stop Claes Dahlbäck, chief executive of Investor, which controls about 20 per cent of Stora, having a quiet word with Enso. While the investor-led shareholders were sorting out the real business, Hägglund was focusing on a big internal efficiency drive.

He doesn't even get to be boss of the new concern, but will have to play second fiddle to Enso chief executive Jukka Härmä. In this first big industrial merger between a Finnish and Swedish company,

Central casting

Credit Lyonnais chairman Jean Peyrelevade said yesterday he hoped to introduce a two-tier board structure at the French bank he is steering towards privatisation. Too many French boards are run in a centralised manner by an all-powerful chairman-chief executive, he explained.

Peyrelevade, who has just three colleagues on his executive board, has been talking about excessive centralisation for at least four of the five years since his appointment - and there's still no sign of a two-tier board or a bigger single-tier one.

Perhaps restructuring Credit Lyonnais required something special - like an all-powerful chairman-chief executive.

Sorry, Borris

Tony Blair has politely rebuffed a late attempt by Russian President Boris Yeltsin to invite himself to the European Union summit in Cardiff in just under a fortnight.

Yeltsin, who has a soft spot for the grand international occasion, apparently broached the possibility

of a lightning visit to Wales during the recent EU-Russia summit in Birmingham. His excuse was that the EU was still stalling on Moscow's demand to be treated as a functioning market economy. If necessary, he was ready to wrap up a deal at the summit.

The Russian leader may also have spotted an opening because the 10 candidate countries from central and eastern Europe are not making their customary trip to the six-monthly EU summit, having attended the recent pan-European conference in London.

Blair politely told Yeltsin that he could not take the place of the central Europeans - that, after all, would be the fastest EU enlargement ever.

In any case, South African President Nelson Mandela is already booked for lunch on the Saturday, and he's just the chap to open proceedings - without feeling the need to commandeer the band.

Paper view

Itamaraty, Brazil's foreign affairs department which has been carving out a new diplomatic role as the regional superpower over the last three years, seems to have lost its touch.

President Fernando Henrique Cardoso has been trying to broker a permanent peace between neighbours Peru and Ecuador since they went to war in 1995 over a border dispute. So this week Presidents Alberto Fujimori of

Peru and Fabian Alarón of Ecuador were invited to Brasilia to discuss a Brazilian compromise. The cameras were ready for a handshake between the three heads of state on the lawn outside Cardoso's palace.

All might have gone smoothly if journalists' information packs hadn't included a secret six-page document detailing the proposal, outlining Brazil's negotiating tactics and assessing Peruvian and Ecuadorian objections.

Cardoso has now "authorised" the document, and new talks start later this week in Buenos Aires. In the meantime, diplomats are refusing to talk about progress. That, they say, is a secret.

Spicy stunt

Toronto's flamboyant mayor Mel Lastman is the last politician to pass up a good stunt. So when the news broke that Geri Halliwell, aka Spice Girls, was leaving the Spice Girls, he was quick to jump to the defence of all those heartbroken eight-year-olds who won't see Ginger at the British pop group's July 11 concert in the Canadian city.

In a fawning letter to Halliwell, the mayor pleaded with her to work out her "differences with the other girls" and turn up for the gig - though as all tickets are sold, that wouldn't make much difference to the turnout. Maybe the Spice Girls' fans will remember his concern when they're old enough to vote.

Financial Times 100 years ago

Bombardment Of Cuba
The latest authentic advice states that the Cuban insurgents and the American fleet are together attacking Santiago de Cuba, and a battle is proceeding. The insurgents have been supplied with heavy guns and ample ammunition, which was landed by an expedition from Key West a week ago. The American Admiral has received news and complete supplies. The present fight is intended for the capture of Santiago. The outer fortifications of Santiago are practically in ruins, particularly Morro Castle. Foreign gunners recently imported to Cuba sent projectiles from a battery of Krupp guns close to the American ships, but none was struck.

50 years ago

S. Africa's Hot Money
Mr. N.C. Havenga, leader of the Afrikaner Party, has stated that the new Nationalist Government intends to win the confidence of "those who still distrust us." That is very welcome. The ability of the Union to avert a serious economic crisis may well depend upon its success in keeping the faith of overseas investors who have poured vast sums of capital into South Africa.

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INSIDE

Swiss stock exchange attracts two more IPOs

Switzerland's growing importance as a centre for European initial public offerings was underlined when two global companies - Barry Callebaut, the industrial chocolate manufacturer, and Gategroup, the photofinishing equipment manufacturer - announced plans to raise up to \$511m (\$677m) on the Swiss stock exchange. Page 17

Singapore's index falls on results

Singapore's results session has been a poor sales pitch for its stock market. The economy depends on international exposure for growth but, with many neighbours in too much trouble to contribute, Singapore's economy is slowing. The crisis is starting to show up in bottom lines and the benchmark Straits Times index is almost 30 per cent below its 1998 peak of the third week of March. Page 26

Cummins pins hopes on alliances

Cummins Engine, the world's biggest maker of large diesel engines, has embarked on a programme to boost its financial results. The Indiana-based company hopes for increased earnings from a revamp of its product range and a series of alliances with other engine makers. Page 16

Euro takes no lead from Wall St

Europe's equity indices rose modestly in yesterday's trading with no overall trend. Markets had little lead from Wall Street and remained concerned about the volatile Asian situation. Page 23

Shoppers shun Shanghai's products

Shanghai's sophisticated shoppers are shunning locally made goods and choosing imported products instead. The fridges, radios and washing machines, which were considered the best brands in China, are now seen as second best. Page 19

Egypt sprays rice crops with poison

Armed Egyptian troops are overseeing the use of chemical weed killers to destroy rice seedlings that the government says have been illegally planted. Egypt is trying to save 3bn cubic metres of water a year by limiting rice production. Page 28

Yen gains on reports of G7 talks

The yen gained on reports that Group of Seven industrialised nations deputies will discuss foreign exchange moves and the Russian crisis around international meetings in Paris next week. Page 25; Editorial Comment, Page 13

Rio Tinto approves Australian mine

Rio Tinto, the world's biggest mining group, has surprised rivals by giving the go-ahead for a coal mine at Hall Creek, central Queensland, Australia, at a cost of A\$400m (US\$245m). Page 25

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Akzo Nobel sees off rival bidder

Deal with potential competitor leaves way clear for agreed takeover of Courtaulds of the UK

By Andrew Edgecliffe-Johnson and Jenny Leach in London and Gordon Grant in Amsterdam

Akzo Nobel yesterday saw off competition to its £1.83bn (£2.83bn) agreed offer for Courtaulds, the UK chemicals company, by doing a deal with its potential rival worth up to £200m.

The Dutch chemicals group unveiled its offer for Courtaulds on May 11, but it immediately became clear it faced competition from a US consortium. PPG Industries, the US paint maker, said it had joined forces with the merchant banking division of Donaldson,

Lockin & Jenrette to make a counterbid for Courtaulds. PPG planned to acquire Courtaulds' coatings division and DLJ its fibres and chemicals operations. The US partners subsequently disagreed, however, on the value of Courtaulds' struggling fibres business.

With DLJ's interest waning, Akzo held talks with PPG on Friday at which it agreed to sell two of Courtaulds' smaller coatings businesses to its US competitor.

The deal, thought to be worth between £150m and £200m, is believed to encompass Courtaulds' architectural

coatings business, which with sales of £90m last year is dominated by the US-produced Porter brand.

The two companies were still finalising the deal last night, but a meeting of DLJ's investment committee on Friday and of PPG's board yesterday saw plans for a Courtaulds counterbid officially abandoned.

Akzo looks like emerging from the deal with a larger fibres business than it expected. This follows a decision by Sabanci of Turkey to abandon a plan to take a 50 per cent stake in the industrial fibres subdivision of the Dutch

group. Akzo's industrial fibres operation had sales last year of £1.57bn, accounting for nearly half of the group's £3.54bn (£3.7bn) in fibres sales.

The Dutch group would not say whether the operation was profitable, saying only that it had improved its performance last year.

The group, which has been anxious to reduce its exposure to fibres, is thought likely to have toughened the terms it was demanding of Sabanci after Courtaulds provided the opportunity for a complete exit from the business.

The Dutch group now intends to spin off the merged

fibres business in its entirety. An announcement is also expected concerning Courtaulds' aerospace coatings and sealants business. Akzo is likely to keep the sealants side of the business, but it needs to find a buyer for at least part of the coatings business. It is already a leading manufacturer of aerospace coatings and the two companies together control more than three-quarters of the world market.

The first closing date for Akzo's offer for Courtaulds is on Tuesday. The Dutch group is offering 45p a share. Courtaulds closed yesterday at 46p.

Frankfurt exchange overtakes Liffe

By Edward Lucas in London

The Deutsche Terminbörse, Germany's derivatives exchange, has for the first time overtaken the London International Financial Futures and Options Exchange in the volume of all contracts traded over a one-month period.

Overall, Liffe traded just under 15.1m contracts in May while the DTF traded 15.55m. In 1997 Liffe traded 23m contracts while the DTF traded 112m.

The surge in trading at DTF, led by high turnover in the 10-year German government bond future contract which the DTF now dominates, is the latest development in the battle between the two exchanges for dominance of the European derivatives market after monetary union next January.

DTF has doubled its overall volume in 12 months. The volume of all contracts traded on Liffe has risen by less than 10 per cent in the same period.

Officials at the DTF attribute the switch to its success in winning majority market share in the German bond future and to the decline in trading on the future contracts in the 10-year UK government bond and its Italian equivalent, which are listed on Liffe. The volume of turnover in the Italian bond future has dropped by 33 per cent on Liffe since May 1997.

The DTF also points to the growth in its international membership, up from 47 institutional members in January 1997 to 91. "Our aggressive strategy of internationalisation is paying off," said a spokesman in Frankfurt.

But officials at Liffe say the DTF's volume figures have been artificially boosted by the exchange's decision to cut the size of the option contracts on its individual equity derivatives to one-fifth their original size in April. This has quadrupled the volume of equity options traded on the DTF.

The German exchange leads London in the derivatives market for all government bonds. But London continues to dominate the market in short-term interest rate contracts with a 66 per cent market share of trading in futures contracts on three-month D-Mark interest rates. The volume of trading in all Liffe's interest rate contracts grew by 57 per cent in the last 12 months.

Capital Markets, Page 24

Stora and Enso deal to create world's largest paper maker

By Tim Burt and Greg Meyer in Stockholm

Stora of Sweden and Enso of Finland yesterday confirmed they are to merge in an \$8.5bn deal to create the world's largest pulp and paper maker.

The tie-up between the world's fourth and fifth largest volume producers of paper and board establishes a group with output of more than 13m tonnes of paper products a year and joint turnover of \$5.8bn (£3.6bn).

It follows more than four months of talks between the Finnish government, Enso's largest shareholder, and investor, the main investment vehicle of the Wallenberg business empire and the largest shareholder in Stora.

The transaction will require approval from the European Commission. Analysts said a possible stumbling block

would be the new company's dominance in drinks packaging production, where it would be by far the continent's biggest supplier, with a market share of close to 70 per cent.

Percy Barnevik, investor chairman, said the enlarged company - to be called Stora Enso - would be better placed to exploit international expansion opportunities. "This industry is very fragmented and now you will get considerably more consolidation coming through," he added.

Jukka Härmälä, Enso chief executive and chief executive designate of the new group, said the merged group would have "far greater resources to serve global and local customers more efficiently".

Analysts hailed the merger, predicting it would spur an upwards re-rating of the deeply cyclical forestry sector in Europe. Scandinavian for-

estry stocks posted strong gains as investors contemplated the prospect of further restructuring. Shares in Enso and Stora, suspended before the start of trade yesterday, are to resume trading today.

The deal would generate \$1.9bn of annual cost-savings and synergy benefits by 2002, the companies said.

Stora shareholders will own 60 per cent of the enlarged group's equity, with Enso shareholders taking the balance. The Finnish government will see its near 47 per cent voting rights in Enso diluted to 21 per cent of the new company. The government will hold 18 per cent of the equity. Goldman Sachs advised Stora and Morgan Stanley advised the Finnish government.

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Finnish trade and industry minister Antti Kalliomäki, left, with Jukka Härmälä, Enso chief executive, and Stora chairman Claes Dahlbeck. Reuters

Sprint remodels network to adapt to internet age

By Richard Waters in New York

Sprint, the third largest US long-distance telephone company, yesterday announced a remodelling of its national network to carry voice, video and data traffic at a far lower cost than at present.

It is one of the most ambitious efforts yet by a US carrier to adapt to the Internet age, and is likely to increase the pressure on other telephone companies to accelerate their own overhauls.

The revamped network will enable customers to receive voice, video and data traffic down a single telephone line at the same time, said William Harvey, Sprint chairman. Using the packet-switching technology that is also the basis for the Internet, the cost for long-distance telephone calls was likely to fall by 70 per cent, he added.

Sprint still faces big challenges before it can make this a reality, however. As a long-distance company,

it lacks the direct local connections to business and residential customers needed to carry its enhanced services. Also, it will have to persuade customers to pay for extra equipment to receive the signals. "These are the difficult hurdles," said Mark Brunson, of Renaissance Worldwide, a communications consulting firm.

The plan will also set into Sprint's earnings over the next three years, adding to pressures on profitability from efforts to expand abroad, and

into wireless telephony. The company said the investment would cut earnings per share by 20-25 cents a share this year, rising to 60 cents a share in each of the next two years.

It reported a 35 per cent decline in earnings per share in 1997, to \$2.11, because of its expansion plans.

Sprint is to adapt its existing fibre optic network to carry voice, video and data traffic in packet-switched form, instead of its more expensive, circuit-switched system. The company

said it had already spent \$2bn adapting its network for the changes, and would need to spend only another \$400m over the next two years.

A combination of technologies will make it more robust than the Internet for voice calls, Sprint said.

"The technology is there, and the technology is going to win this battle," said Ronald LaMay, Sprint president.

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BARRY RILEY

Bonds could be winners in the deflation scenario

Leading bond markets have been strong since mid-May even though equities have moved falteringly. Perhaps the markets are finally taking the deflation scenario seriously. Or maybe we have been seeing the impact of Japanese tight capital; this latest bond market upturn has coincided with renewed yen weakness.

There has been particular strength in UK gilts, the highest yields in government bonds among the developed economies. The 10-year gilt yield had tumbled 20 basis points in just over two weeks before yesterday's setback, at one point almost closing the spread against the corresponding US Treasury bond. The spread against German bonds remains a substantial 90 basis points, but most of that gap reflects much higher income at the short end of the sterling yield curve rather than any great difference in long-term yield expectations.

Gilts have benefited from fears of a supply crunch as it has become clear that the UK is heading towards a substantial budget surplus. The cautious forecasting of this by the Treasury is understandable: Gordon Brown, chancellor of the exchequer, will surely want to encourage the increasing calls for more spending on education and health.

So should US Treasuries move above gilts to the top of

the yield league table? This has already happened at the 30-year term. Far Eastern investors probably wish to diversify their risks, especially into euro securities, given their high exposure to dollar assets.

The US government is also moving into budget surplus, but there is heavy private sector issuance of dollar bonds as the corporate sector leverages up. The biggest immediate obstacle, however, is the spectacular strength of the US economy, with first-quarter gross domestic product growth revised up last week to 4.8 per cent.

The comfortable slowdown so regularly forecast by securities industry economists is just not happening (and the recent sharp acceleration of broad money growth has confirmed the durability of the trend).

Imported deflation is clearly visible in the weakness of the producer price index, but domestic demand is going through the roof, with a rise of 7.3 per cent, annualised, from January to March. The collapse in net exports is obscuring the scale of the boom.

Perhaps the Asian chaos will still prevent the Federal Reserve from raising interest rates. Indeed, maybe the Fed will remain cowed by the possible consequences of precipitating a Wall Street correction before the mid-term

elections. But the domestic case for tightening (the Fed next meets on June 30) is becoming unanswerable, although the threat is being largely ignored by the markets. This is not a comfortable environment for Treasury bond investors, nor for the stock market, with corporate profits being mangled between stagnant prices and rising costs.

Internationally, though, bond market trends remain favourable. The pattern of reduced government bond issuance applies to most developed economies: according to Barclays Capital, net annual G-10 issuance (excluding Japan) collapsed by 60 per cent between 1993 and 1997. Even in Japan oversupply is no problem, with savers craving security: the yield on the seven-year benchmark bond No. 188 has fallen to 1.13 per cent.

Japan experienced it first, but now the deflation bandwagon is beginning to roll elsewhere. As Asia goes into recession the output gap is widening further. The commodity price indices are hitting four-year lows. If the Fed feels obliged to stifle US pay and asset price inflation, the impact on aggregate global growth could be severe.

It all looks distinctly promising for creditworthy bonds, although US Treasuries may have local difficulties to overcome in the short run.

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COMPANIES & FINANCE: EUROPE

FINANCIAL SERVICES: GROUP SHIFTS FOCUS

ING places emphasis on euro-zone

By Clay Harris, Banking Correspondent

ING Group, the Dutch financial services company, said yesterday that expansion in continental Europe was its priority, but denied it had reduced its ambitions in the UK, the US or emerging markets such as Latin America.

Arjun Mathrani, chief executive of ING Barings, the group's London-based investment bank, quit last week after a disagreement over European strategy. He was most senior of a stream of executives to leave Barings in recent months.

Resigning only five months after joining from Chase Manhattan, Mr Mathrani objected to a new structure bringing together the continental corporate and investment banking operations of ING Barings, ING Bank and Belgium's Banque Bruxelles Lambert, which ING bought earlier this year.

It will operate under the ING Barings name. Mr Mathrani was unhappy about sharing authority with Michel Tilmant, BBL chief executive.

Marinus Minderhoud, ING Bank chairman and a director of ING Group, is covering until a replacement is found. Meanwhile he plans to spend four days a week in London.

Yesterday, he was addressing ING executives at the Dutch resort of Noordwijk.

Like other continental financial groups, ING is placing a new emphasis on activity within the euro-zone.

This marks a change from recent years, when expansion in the US - where it bought the investment bank Funnell last year - or in emerging Europe was at the top of the list. Earlier



Arjun Mathrani disagreed over group's European strategy

this year, ING Barings reduced its local presence in Latin America, traditionally one of its strongest areas.

ING said buying a commercial bank in Europe was its highest priority, but it remained interested in further purchases of US life insurers, investment banks or asset managers. Outside Benelux, European expansion in retail banking will be limited to direct banking.

Earlier this year it bought a 49 per cent stake in Allgemene Deutsche

Direktbank in Frankfurt.

Mr Mathrani's successor will have to address a fall in morale at the bank, which ING bought in 1993.

James Lupton, Barings deputy chairman, and Simon Barrows, head of corporate finance, quit in April after a dispute over strategy to open a European office for Greenhill & Co, the US advisory firm. J.P. Morgan and Merrill Lynch, the US banks, and France's Société Générale have also recruited top Barings executives recently.

See List

Swiss bourse attracts two more IPOs

By William Hall in Zurich

Switzerland's growing importance as a centre for European initial public offerings was underlined yesterday when two global companies announced plans to raise up to SF1bn (\$677m) on the Swiss stock exchange.

Swiss companies raised SF2.5bn in IPOs last year and there have been five Swiss IPOs this year. The Swiss stock exchange says there are another seven in the pipeline, including the flotation of Swisscom which is expected to raise more than SF5bn later this year.

The Swiss stock market index has nearly doubled over the past 18 months and

this, coupled with the rapid restructuring of Swiss industry, has spawned an unusually large number of IPOs.

Barry Callebaut, the world's biggest manufacturer of industrial chocolate, is to float 1.42m shares, or around 27.5 per cent of its equity, and Gretag Imaging, the world's leading manufacturer of photofinishing equipment, is to sell 3.4m shares, or just under 60 per cent of its equity.

Both IPOs, which will raise around SF500m each, involve the issue of new equity and the sale of shares by existing shareholders.

The indicated price range for the Barry Callebaut IPO is SF200 to SF240 a share,

which is equal to between 16 and 18 times estimated earnings for the year to August 1999 and a yield of around 1.5 per cent.

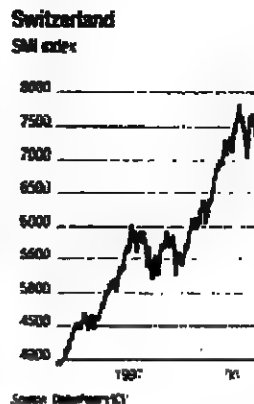
Gretag, which aims to expand its sales by 10 to 15 per cent a year, has set an indicative price range of SF125 to SF150, which is equal to between 13 and 15 times estimated 1999 earnings and a prospective yield of just over 1 per cent.

Barry Callebaut is owned by Klaus Jacobs, the Swiss financier, and is the result of the 1996 merger of Belgium-based Callebaut, an industrial chocolate manufacturer, and the French-based Barry, a specialist in cocoa sourcing.

The combined group has a 35 per cent share of the market for industrial chocolate, which goes into everything from ice-cream and biscuits to high-priced confectionery. Last year it had sales of nearly SF2bn and net income of SF70.5m.

Barry Callebaut describes itself as a "Swiss company with strong French and Belgian roots". The bulk of its business and management is based outside Switzerland, as are its main competitors such as Cargill and Archer Daniels Midland.

However, its decision to seek a Swiss stock market listing partly reflects the fact that its main shareholder is Swiss, and Switzerland.



Source: DataStream

ing a 1990 management buy-out from Ciba-Geigy, the Swiss pharmaceutical firm, considered seeking a US stock market quotation. It has close ties to Kodak, the US photography group and a shareholder, nearly two-thirds of its SF250m sales are in the US, and William Reeder, the group's US-born chief executive, is based in the US.

Haus Zulliger, Gretag chairman, said the company had decided to seek a Swiss listing because valuations in Switzerland were similar to other markets. Flotation costs were cheaper, and reporting requirements and legal restrictions were less onerous.

Viag rises on rumours Obermeier will be removed

By Ralph Atkins in Bonn

Shares in Viag, the Munich-based energy to telecommunications conglomerate, jumped more than 3 per cent to DM1,061 yesterday on expectations that Georg Obermeier will be removed from his post as chairman this month.

A final decision is expected at an extraordinary meeting of the group's supervisory board on June 22.

Viag has refused to deny reports that Mr Obermeier has lost the support of the supervisory board and would be replaced by Wilhelm Simon, chairman of Viag's SKW Trostberg chemicals subsidiary. Mr Obermeier is on holiday this week.

In recent months Viag has suffered from negative publicity over the sale of its stake in Computer 3000,

the personal computer distributor.

However, dissatisfaction with Mr Obermeier is believed to reflect more the personal friction between senior Viag managers and, possibly, wider question marks over the pace of restructuring at Viag.

The company is heavily dominated by its energy interests which analysts estimate account for about

80 per cent of its earnings.

Yesterday's share price jump reflected hopes that a new chairman might break the lethargy which has gripped German utilities' shares recently by reinvigorating Viag's efforts at cost cutting and reshaping as an internationally-oriented business.

But analysts pointed out the loss of Mr Obermeier's knowledge of the electricity business

would be a disadvantage as Viag reacts to liberalisation of the energy market and seeks to build its activities into a central Europe-wide operation.

Bavarian-born Mr Obermeier, 66, has been chairman of Viag since August 1995 and a member of its board since November 1989. During this time, he has been closely involved in some of Viag's biggest expansion projects, including its takeover in 1991 of Bayernwerk, one of Germany's largest electricity utilities where Mr Obermeier had previously been finance director.

In contrast to Mannesmann, Veba and RWE rival industrial conglomerates, Viag has moved relatively late into the television market. Its mobile television services are not expected to begin until late summer

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- In partnership with Allianz-RAS-Tokio, Şark Sigorta ranks among the top 3 composite insurance companies in Turkey.
- Koçbank operates 59 domestic branches and a fully licensed subsidiary in Amsterdam.
- Koç Securities was set up in 1997 specialising in asset management, brokerage and advisory services.
- Şark Hayat (Life), is growing fast thanks to the popularity of its pension, health and life schemes.

Koç A part of Turkish life.

ANNUAL FINES...
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Approval granted for Thyssen/Krupp merger
FRENCH BANKING
Lyonnais seeks wider ownership
CONSTRUCTION
Internal buy-out at FCC
TELEVISION
Hance talks collapse
stake sale approved
COMMUNICATIONS
I agree Hungary deal
TAKE SALE
books SKr2.1bn gain

COMPANIES & FINANCE: THE AMERICAS

TECHNOLOGY LOW-COST PCs AND ANTI-TRUST LAWSUITS CONTRIBUTE TO DOWNWARD SPIRAL

Computer fears dim share prices

By John Labate in New York

Monday's choppy trading session on Wall Street renewed debate about how much further the downward spiral in US technology stocks, especially computer-related shares, has to go.

The split in share price performance between high-technology stocks and the rest of the market was made even clearer as investors poured money into blue-chip stocks.

The technology index at the Pacific Stock Exchange,

based in San Francisco, tumbled 2.4 per cent on Monday, while the Dow Jones Industrial Average managed a small but steady gain.

By early afternoon yesterday, investors had bid up the price of many technology stocks, but this was only a partial recovery.

Earlier, news that Intel, the leading chip-maker, had delayed the release of its next generation chip sent the company's own shares down nearly 5 per cent.

Intel's delay was only the latest worry for the com-

puter sector, where a growing list of longer-term concerns has emerged, including sub-\$1,000 personal computers, anti-trust lawsuits against Microsoft and possibly Intel, and uncertainty about how deeply Asia's economic malaise will affect future profits.

Since hitting a peak of 361.96 on May 4, the PSE's technology index is down more than 10 per cent, at 322.40. "Instead of having a market correction, we're having sector corrections," said Arthur Hogan, chief

market analyst at Jefferies & Co in Boston.

For much of 1998, personal computer-makers, including IBM and Compaq, have faced inventory problems as companies have realigned their selling strategies in the face of falling PC prices.

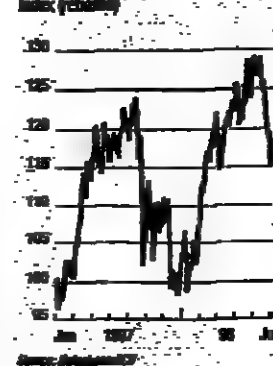
"They knew they had to sell a lot of PCs to get to their revenue targets," said Richard Gardner of Salomon Smith Barney in San Francisco. He expects the worst is over and inventories should return to more normal levels by the end of the

June quarter. Plunging Asian currencies have greatly reduced the cost of components to PC producers. But most of those savings are passed on to consumers.

With cash still pouring into US investment funds, some suggest technology stock prices have reached a bottom for the short term and investors will begin to move back in. Indeed, the weeks prior to the second-quarter earnings season could see a sharp rebound in technology share prices.

"Most professional investors want to be in ahead of earnings," said Mr Hogan. If companies fail to deliver on profits, however, the rest of the year could be as choppy as the start.

Pacific SE Technology Index (points)



NEWS DIGEST

MEDIA

ABC News sells WTN to Associated Press

ABC News, a subsidiary of Walt Disney, has sold Worldwide Television News, the global television news agency, to Associated Press Television, one of its leading rivals. The deal, which is expected to value WTN at about \$55m, could lead to job losses because of an overlap in operations. Associated Press won an auction for the agency against Reuters, the European financial information group.

Under the deal, both Independent Television News, the UK company, and Channel Nine of Australia, are likely to sell their 10 per cent stakes in WTN. Walt Disney, which holds 80 per cent, has the right to enforce a sale. The agreement is likely to ease a period of intense competition between WTN, Reuters Television and APTV, which entered the market in 1994. The arrival of APTV led to the cutting of margins as it tried to gain market share.

Associated Press, owned by a group of leading American newspaper publishers, is expected to consolidate the two news agencies, which both provide television footage for broadcasting companies. Reuters also submitted a bid of over \$50m, according to people familiar with the negotiations. Although Reuters Television is the leading agency, it was interested in acquiring WTN's facilities management arm.

INVESTMENT BANKING

US name change at DMG

Deutsche Bank has changed the name of its US securities business from Deutsche Morgan Grenfell to Deutsche Bank Securities, as part of its plan to streamline the Deutsche Morgan Grenfell name, following its previously announced restructuring of its global business. Edward Carter, managing director and head of investment banking in the Americas, has been appointed president and chief executive of Deutsche Bank Securities. Barry Alarid is chief executive of Deutsche Bank in the Americas. DMG Technology Group, run by Frank Quattrone on the West Coast, has been renamed Deutsche Bank Securities Technology Group.

OIL AND GAS

Repsol, Amoco in new alliance

Repsol, the Spanish oil and gas group, plans to take a stake in Trinidad gas fields run by Amoco of the US under an alliance covering other areas of co-operation in Spain, Latin America and the Caribbean. The Spanish company said it aimed to take an initial 10 per cent of Amoco's participation in the oil and natural gas reserves, with an option to increase its holding to 30 per cent. Repsol, the Spanish electrical utility which has a collaboration pact with Repsol on energy projects, might also join the agreement, it added.

Repsol and Amoco are already partners in a \$1bn project to produce liquefied natural gas in Trinidad along with BG and other shareholders, using supplies from Amoco's offshore fields. The Spanish group has a 20 per cent share in the venture, Atlantic LNG, and 40 per cent of the production is due to be bought by Enagás, part of Repsol affiliate Gas Natural. The two companies were meanwhile "actively investigating" natural gas opportunities in Brazil. David White, Madrid

Motorola and Lucent in DSP partnership

By Paul Taylor

Motorola and Lucent Technologies, two leading electronics groups, are to set up a joint research and development centre in Atlanta aimed at developing next generation digital signal processor (DSP) technology.

The partnership brings together the number two and three companies in the fast-expanding market for DSPs and poses a serious challenge to Texas Instruments, the current leader which has a market share of about 45 per cent.

DSPs are used in a wide range of consumer and industrial electronic equipment including modern communications devices, disk drives, broadcast satellites and mobile telephones.

Last year the world DSP market was worth about \$3bn but is forecast to reach \$1.5bn by 2002, making it one of the fastest growing segments of the dynamic semiconductor market.

"We believe this collaboration will enable us to pool our resources and shorten development cycles," said John Hughes, managing

director of Lucent's microelectronics operations in Europe, Africa and the Middle East.

The two companies will collaborate on core designs for the computing engine which can then be used in the building of a wide range of DSP devices. However they will separately develop and market fully-fledged DSPs based on these designs.

Under the terms of the agreement, the two companies will cross-license each other's existing DSP technology and set up a joint design centre, dubbed StarCore, which is due to open this autumn and which is expected to deliver its first DSP core designs by mid-1999.

Lucent will also license Motorola's M-Core reduced instruction set computing microcontroller technology.

Fred Shlapak, in charge of Motorola's wireless subscriber systems group, said the agreement was "the first of its type" in a highly competitive industry.

Will Strauss, president of Forward Concepts, the IT consultancy said: "The alliance is unprecedented, and is a very dramatic event in the DSP industry."

Sprint leap needs firm landing

By Richard Waters in New York

Sprint's plans for its next great technological leap display both the strengths and weaknesses of the third-biggest US long-distance telephone carrier.

This is the company that built the first national fibre-optic telephone network, and is in the midst of building the first country-wide digital wireless telephone system.

Daring technological leaps are nothing new for Bill Barry, Sprint chairman.

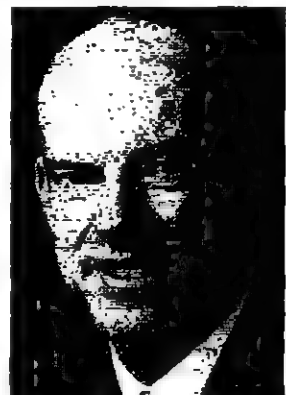
However, this is also the company that decided some time ago it could not take on the world alone and win.

The Kansas City-based company's strategy during the 1990s has relied heavily on two partnerships - one with a group of cable television companies, the other with the national German and French carriers. Neither has lived up to its promise. If the company's latest ambitious plans are to bear fruit, it will have to make such arrangements work far more effectively.

On the technology side, at least, Wall Street gave Sprint a strong vote of confidence yesterday. Its shares rose on the news, despite the fact the investment will weigh on its earnings over the next three years, suggesting a strong belief it will succeed in constructing the sort of integrated voice, data and video network it has promised.

While this may vault Sprint ahead of other established carriers, it provides a less clear-cut advantage over the likes of Qwest and Level 3, start-up carriers which are building national networks from scratch. These networks will be founded on internet protocols from the outset and will not face the sort of re-engineering issues Sprint, like other carriers, will have to face.

According to Ronald Lefay, Sprint's president, the company's new network will still have an edge. For a start, Sprint's customer base and the larger footprint of its network give it a lead over companies like Qwest.



Bill Barry, Sprint chairman during strategy session

While making grand claims for the capabilities of its network, Sprint has been far less specific about exactly how the company's customers would find a way to plug in. It is here it will eventually have to rely on partnerships - including with the local carriers which present the greatest potential obstacles.

Like other long-distance companies, Sprint largely relies on the five regional "Baby Bell" companies to provide the wire linking customers to its network.

To make its promises a reality, Sprint will have to persuade the Bell companies, or the smaller rivals springing up to challenge them, to upgrade their own networks. Alternatives may include using cable television lines

or its new wireless network, Sprint said.

Yet its plans could pose a challenge to the local telephone companies. By piping voice, video and data simultaneously down a single telephone line, Sprint would remove the need for extra lines. That, in turn, could undermine the traditional economics of the local telephone companies, which charge a flat rate per line.

A further question not answered by Sprint yesterday was how it planned to extend its new network outside the US.

This may not be the first priority. "This is, initially, a national strategy," said Mark Bruneau of Renaissance Worldwide, a communications consultancy. "Too many companies have blown their brains out trying to be global. The US is the largest market in the world, and it is poorly served."

However, the large companies seen as the first customers for the new Sprint service are likely to value seamless international service far more highly than smaller businesses and residential customers.

Global One, the joint venture with France Telecom and Deutsche Telekom, is intended to be the vehicle for Sprint's international strategy. But to judge from Global One's high costs and slow progress so far, Sprint may eventually be forced to pursue other routes.

The engine spluttering back to life

Cummins is hoping its \$1bn investment is about to bear fruit, writes Peter Marsh

For a company whose products pack a hefty punch, Cummins Engine, the world's biggest maker of large diesel engines, has proved a disappointing lightweight when it comes to shareholder returns.

However, the Indiana-based company has now embarked on a bold programme which it hopes will put to rest the worries on Wall Street about whether it can deliver financial results to match its engines' firepower.

It is hoping for large increases in earnings in the next few years from a \$1bn investment since the mid-1990s on a wholesale revamp of its product range, which includes a variety of machines from mining shovels to pick-up trucks. Further, it is looking for a payoff from an ambitious series of alliances formed in recent years with other engine makers.

Last week it announced a joint venture with Komatsu, Japan's biggest maker of earthmoving equipment, to produce from next year a new family of small engines, of a type Cummins currently does not make. They are suited to powering "mini" excavators and other "compact" construction machines.

"We are in an era of change," says Jim Henderson, chairman and chief executive. "We simply want to make the best engines in the world."

But Cummins' recent efforts have left many investors unhappy. While net earnings of \$212m last year, on sales of \$6.6bn, were 32 per cent above the \$160m in 1996, they compare poorly with the \$533m reported in 1994. The shares have underperformed the rest of the New York Stock Exchange by about 40 per cent since 1994, reflecting Wall Street's dissatisfaction.

Underlying the company's reputation for being accident-prone, Cummins surprised analysts in the first quarter of this year by announcing a \$93m charge. This reflected unexpectedly high warranty costs on some of its heavy-duty truck engines.

However, the company



Jim Henderson: shareholders will soon see results

prevent it increasing earnings for the year.

"Cummins has done a remarkable job in extending its product range through the alliance strategy but it ought to be making more money," says John McCarthy, an analyst at Credit Suisse First Boston.

Tobias Levkovich of Salomon Smith Barney says the investment community has been "disappointed" by the company's failure to push up profits in the past few years, while concerns about its exposure to the Asian crisis and the impact of any downturn in the US truck market have also depressed its shares.

Mr Henderson, who started at Cummins in 1967 and has had the top job since 1994, says profits have been hit by the need to step up development spending. "By around the end of the century half Cummins' sales will come from the new families of engines - which should give significantly better performance in terms of fuel economy and emissions," he says. Mr Henderson expects Cummins to turn in "double digit annual growth rates in revenues

the world," says Mr Henderson - last year the company derived 45 per cent of its sales from outside the US.

As well as ventures in China and India and a joint programme to make large engines for electricity generation with Wärtsilä of Finland, Cummins signed a deal in 1996 with Fiat, the Italian automotive group. The companies are spending \$300m on a new generation of engines both for Cummins' general sale and for use by Fiat's truck, tractor and bus subsidiaries.

Annual revenues from Cummins' joint ventures - another of which is building engines for Case, the US tractor and construction machine maker - should double to some \$1bn by the end of the century, the company predicts.

Cummins already has several manufacturing and development partnerships with Komatsu, the first of which was signed in 1961. Last year it extended the alliance through a project based in Japan to research a new generation of industrial engines.

Over the next few years, Mr Henderson is looking for a modest windfall from last year's \$1.8bn takeover by Caterpillar, the US company which is the world's biggest maker of construction machines, of Perkins, a UK-based rival supplier of diesel engines. Perkins is one of Cummins' arch rivals and was previously owned by the LucasVarity automotive parts group.

Because some makers of construction equipment which compete with Caterpillar may be unhappy at buying engines from a supplier controlled by the US giant, Cummins' own sales could benefit to the tune of up to \$100m a year by early next decade, Mr Henderson reckons.

The rash of projects in the pipeline have impressed Cummins' Wall Street watchers - up to a point. "In the past the company has overpromised and underperformed," says Charles Harris, an analyst at CIBC Oppenheimer, the New York bank. But he adds: "If all the strategies can be implemented, the potential could be enormous."

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Making life in Bosnia C

SECURITIES

Morgan Stanley

Shanghai suffers as shoppers seek sophistication

James Harding

Shanghai's economy is suffering from a lack of sophistication, according to a report by Morgan Stanley. The report says that the city's economy is still largely based on low-value-added manufacturing and services, and that it needs to move towards higher-value-added industries to achieve sustainable growth.

The report also notes that Shanghai's financial markets are still in the early stages of development, and that the city needs to attract more foreign investment to boost its economic growth. Morgan Stanley is currently advising the Shanghai government on how to improve its financial system and attract more foreign capital.

Mazda may join

Mazda may join the Nestlé S.A. Cham and Payment of dividend. The company is considering a dividend payment to its shareholders, and is currently in the process of determining the amount and timing of the payment.

The company is also considering a share repurchase program, and is currently in the process of determining the amount and timing of the repurchase. Nestlé S.A. Cham and Payment of dividend.

NESTLÉ S.A. Cham and Payment of dividend

Notice is hereby given that the General Assembly of Nestlé S.A. Cham and Payment of dividend. The company is considering a dividend payment to its shareholders, and is currently in the process of determining the amount and timing of the payment.

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COMPANIES & FINANCE: ASIA-PACIFIC

SECURITIES HONG KONG REGULATOR SAYS BANK'S BEHAVIOUR AMOUNTED TO MISCONDUCT

Morgan Stanley Asia reprimanded

By Louise Lucas in Hong Kong

A public row broke out yesterday after the Hong Kong securities regulator reprimanded Morgan Stanley Asia for failing to ensure full disclosure over a deal for a mainland-backed company.

While the Securities and Futures Commission said Morgan Stanley Asia's failure amounted to misconduct, the US investment bank retaliated by saying it had met all disclosures required by law.

The SFC has rarely had to reprimand an international investment house, and the fact that the incident has blown into a public row is

also unusual as the SFC consults the subject of its investigation before delivering its findings.

The row comes one year after the SFC launched its investigation into Morgan Stanley Asia's role in an acquisition and subsequent placement by China Everbright, one of the listed companies under the acquisitive business arm of China's State Council.

Widespread speculation about the deal sent China Everbright's share price soaring, by almost 40 per cent one day, but the company did not announce the deal or the state of negotiations at that stage.

Mark Dickens, executive director of enforcement for the Securities and Futures Commission, said Morgan Stanley Asia's failure "amounted to misconduct and impugned its fitness and propriety to be registered".

The US-based investment bank hit back at the SFC, saying that in its capacity as an adviser it was under no obligation to make the disclosures itself.

The deal at the centre of the row has already sparked controversy, and prompted conciliatory action to be taken by directors of China Everbright. In June, China Everbright (then China Everbright IHD-Pacific)

bought a 20 per cent stake in Everbright Bank of China, after dispensing share options to certain directors.

News of the acquisition, which gave foreign investors one of their first opportunities to access the tightly regulated mainland banking sector, sent China Everbright's share price soaring.

The share options have since been surrendered, with the directors acknowledging an "unintentional breach" of the Hong Kong Stock Exchange's listing rules.

failed to ensure China Everbright disclosed such information to the public, despite widespread speculation.

"Morgan Stanley Asia therefore did not fulfil its regulatory responsibility to ensure that the public was told this information," the SFC said.

Morgan Stanley Asia, insisting it made all the necessary disclosures, responded: "There were no regulatory guidelines for a situation similar to the one Morgan Stanley Asia and its client were facing."

"We therefore think it is inappropriate for the SFC to use disciplinary action to set guidelines retrospectively."

Shanghai suffers as shoppers seek sophistication

Chinese consumers are turning away from goods no longer seen as market leaders, reports James Harding

To many Chinese, "Made in Shanghai" was once a mark of quality.

Through the 1980s, 1970s and much of the 1990s, fridges, radios and washing machines made in Shanghai and intended for the country's most discerning consumers were indisputably the best brands in China.

Today they are very much second best. Whether it is a Hongdeng Red Lantern radio, a Jinxing Goldstar television set or a Shuixian Narcius washing machine, Shanghai's consumer durables have exchanged their former lustre and earned reputations for boxy, chunky designs, hand-me-down technology and unreliable after-sales service.

Shanghai's sophisticated shoppers these days shun locally made goods and choose either an imported product or, more commonly, one of the new domestic marques that have emerged from provincial China to outshine even their foreign rivals.

Qingdao Haier fridges, Wuxi Little Swan washing machines and Sichuan Changhong colour TVs, to name just a few, have supplanted the old Shanghai titans.

The degeneration of Shanghai's flagship brands contrasts with the city's renaissance in retailing.

Shanghai Shangling, an electric appliance group, is an example of a Shanghai manufacturer that has fallen from grace in recent years. Once Shangling refrigerators were among the best known in China, but the common

judgment today is that they are noisy and no match for the low-cost, high-quality products from domestic manufacturers.

Qingdao Haier and Guangdong Kelon. The fall in Shanghai's standing with consumers has been matched by a slide in revenues. The group's sales declined from RMB4.6bn in 1996 to RMB3bn (\$222m) in 1997, while profits slid from RMB280m to RMB100m.

Shangling's listed vehicle for foreign currency shareholders has performed even worse. The company, which represents only a portion of the group's business and draws up its financial results separately, made a loss last year.

Chen Jiumin, the group's general manager, says: "The decline in profits and sales at Shanghai Shangling must in part be blamed on our own mistakes. It is true the market is fiercely competitive, but other Chinese companies are making money."

Those mistakes, Mr Chen says, include failure to invest in technology that would have kept Shangling's products in line with rising standards in the market.

But the company has also neglected the revolution in branding and marketing that has changed consumer businesses in China. Indeed, Shanghai's manufacturers have not only yielded space in department stores to their out-of-town competitors, but the street-side hoardings too are planned to build two 24-storey blocks in Pudong, Shanghai's overbuilt, underused



Consumer paradise: Shanghai goods are losing ground against higher-quality durables. Fergus While

brand names are few and far between.

"Our spending on branding, advertising and distribution has lagged well behind our competitors in the market," says Mr Chen.

He plans to raise spending on advertising this year from the equivalent of 1 per cent of turnover to 3 per cent because "this is an oversupplied market and it is important for consumers here to get a sense of the brand and the company's values".

Just as costly has been Shangling's venture beyond its core electric appliance business. "We absorbed a lot of capital, but we were misdirected," he says.

"We did not invest in sales, distribution, marketing and technology. Instead, we followed a policy of diversification, investing particularly in real estate, where prices have promptly tumbled."

urban development zone. Mr Chen, who took over as general manager at the end of 1996, has modified this "former plan" and intends to slow construction, gradually disentangle the company from some of its forays into the property market and retrieve some of the capital.

Shanghai Shangling is not the only local business to have been lured into the property business by the promise of quick-fix profits, as core businesses faced shrinking margins and soaring rental prices in the early 1990s seemed to promise healthy returns.

The government even encouraged such diversification, looking in part to local businesses to finance ambitious plans to turn the former mudflats in Pudong into a modern financial centre.

This new focus for Shanghai in the 1990s has, arguably, led the municipal authorities to neglect the city's manufacturing industries, focusing instead on the

development of white collar businesses, blinding it to the problems of local assembly lines caused by the breathless expansion of the economy and the surging rates of foreign investment.

At Shanghai Shangling, Mr Chen is hoping to turn the tide. The company wants to reverse its diversification strategy, invest more heavily in advertising, trim the staff, increase spend on new technologies, exploit the government's recently renewed commitment to the electric appliance sector and even look at the possibility of exports.

"We are confident that we can put an end to the trend. Shanghai still has the lead over others in terms of management and staff," says Mr Chen, who promises a substantial rise in profits in 1998.

To do that and resuscitate the reputation of products "Made in Shanghai", his first task will be to win back the affection of Shanghai's own demanding breed of shoppers.

Mazda may join Ford in bid for Kia

By John Barton in Seoul

Kia Motors, the bankrupt South Korean carmaker, said yesterday Ford Motor was considering acquisition of a majority stake in a consortium with Mazda Motor, Ford's Japanese subsidiary, and other investors.

Kia's creditor banks are expected to complete plans by July to sell Korea's third-largest carmaker through competitive bidding to foreign or domestic investors, the industry ministry said.

Yoo Chong-ryul, Kia chairman, acknowledged the company's debts of Won12,000bn (\$8.6bn) could prove an obstacle to Ford or any other carmaker taking over Kia.

Kia has been holding talks with Ford on a possible takeover bid as the US carmaker is the company's largest shareholder, with 16.9 per cent. Ford has said it is considering increasing its stake in Kia under the right circumstances to protect its investment.

Kia favours a deal with

Ford because it would guarantee continued independence and prevent it from being absorbed by either of two Korean carmakers, Hyundai or Samsung. Ford would plan to retain the Kia brand, Mr Yoo said.

Any takeover bid would be subject to approval by the government and Kia's main creditors, which include the state-run Korea Development Bank.

"Ford wants to support us in developing an environmentally friendly model [by

providing] technology, marketing and management, with the aim of advancing into the US and European markets together," Mr Yoo said.

He added Ford would provide Kia with technology and financing, while sharing production capacity.

Mr Yoo warned labour militancy at Kia could discourage potential investors. "Ford also regards labour problems as the most pressing issue Kia has to tackle before it invests."

More than 10,000 Kia workers went on strike this week over unpaid wages and a demand for job guarantees.

Mr Yoo said a possible deal with Ford could be concluded by the end of the year once creditors and the courts agreed to a restructuring plan that Kia is due to submit by the end of July.

Investments by Ford and other new shareholders would increase Kia's capital to Won1,000bn from Won378.7bn and reduce debt to two times equity by 2002.

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Payment of dividend

Notice is hereby given to shareholders that following a resolution of the General Meeting of Shareholders held on May 28, 1998, the following dividend for the business year 1997 will be paid to them as from June 3, 1998:

gross CHF 35.- per share

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All dividends will be paid by bank transfer to the shareholder's account or by cheque, in accordance with the instructions received from the shareholder.

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USD Denominated Series D & E \$100 M. P.A.	USD 10.25 Per USD 1,000	12.50%	12/3/98
PPP Denominated Series	4.5 Per P.A.	PPP 114.56 Per PPP \$,000	12/3/98

June 3, 1998

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Vodafone sees 30% surge in mobile phones



Mr Ernest Harrison (left), chairman, with Chris Gent, most international licences have gone

By Virginia Marshall

The number of mobile phone subscribers in the UK will grow by more than 30 per cent this year to reach one in five of the population, Vodafone, the UK's largest operator predicted yesterday.

Chris Gent, chief executive, said the group expected penetration would rise from 16 per cent last year to about 21 per cent and would rise to more than half the population by 2006.

The group now believed penetration would reach over 80 per cent in all the developed countries where it operated.

"Finland will get there this year and Sweden is not far behind," he said.

His comments came as Vodafone unveiled a 31 per cent increase in pre-tax profits to £560m (£1.07bn) on sales up 41 per cent at £2.47bn (£1.75bn). The results, for the year to March 31, were ahead of expectations, and most analysts increased their profits forecasts for the current year.

The shares rose 25p, or 3.6 per cent, to a high of 713p, up from about 300p three years ago.

ABN Amro Hoare Govett is predicting pre-tax profits of £560m this time, with about £300m expected to come from international operations.

A more than sixfold increase in profits from international activities to £122m (£18m) was the main reason for a 27 per cent rise in operating profits to £886m.

Mr Gent said all European operations were now profitable apart from Germany. E-Plus Mobilfunk, the country's third cellular operator in which Vodafone has a 17.2 per cent stake, would continue to incur start-up losses and absorb cash this year.

He said that apart from in Africa, most of the international licences worth bidding for had gone and that future overseas expansion was therefore more likely to come from acquisitions.

Capital expenditure would be about £700m this year, up from £482m. Close to half would be spent in the UK, where there was a need to invest in extra capacity to keep up with growth.

The UK business ended the year with more than 3.4m customers after connecting 563,000 new subscribers, enabling the group to retain market leadership with a 38 (39) per cent share. Despite several price cuts, average revenue per customer was unchanged at £427 because of extra usage.

Earnings per share were up 15 per cent at 13.69p (11.89p) and a final dividend of 2.83p makes a total of 5.53p, up 16 per cent.

ENGINEERING GROUP WILL SPEND MORE THAN £100M OVER NEXT TWO YEARS TO ACCELERATE RESTRUCTURING

Siebe warns of job losses in cost-cutting plan

By Andrew Edgecliffe-Johnson

Siebe, the leading light of the UK engineering industry, warned yesterday that tougher global economic conditions would force it to cut 4,000 jobs and accelerate cost savings.

The news caught investors off-guard, knocking Siebe's shares from £15.08 to £13.60 and sending a shudder through other engineering and electronics stocks.

Allen Yurko, chief executive, said 2,000 jobs would disappear from the 50,000-strong workforce, and that a further 2,000 would be moved from the US and Europe to cheaper manufacturing locations such as Mexico and Malaysia.

He added: "The relative strength of the dollar and the pound was a wake-up call. We received that wake-up call and we are up and running and responding to it."

Siebe will spend about £100m over the next two years to accelerate its restructuring. It expects this to generate annual benefits of £50m.

"People will ask why a company with record operating profits is expanding its restructuring plans now. You don't wait in this industry. It is a never-ending case of new technologies replacing old technologies," said Mr Yurko.

The company also put businesses with £300m of sales and £30m of operating profits up for sale. These include North Safety Products, an industrial safety business, and Proter Comatel, an electrical connector group.

Analysts were surprised that Siebe, which had been sanguine about turbulence in south-east Asia, signalled that it was shifting investment from the region towards Russia, eastern Europe, China and Latin America.

By 2000, 40 per cent of the group's manufacturing capacity would be in countries with labour costs of less than \$3 an hour, compared with 30 per cent at present.

Mr Yurko also revealed that flat prices for the commodities it bought were making it difficult to increase prices to its own customers.

The results for the year to April showed strong profit growth, however, with pre-tax profits up 15 per cent to £486m on a 22 per cent advance in sales to £3.57bn, including £75m from acquisitions.

The full year dividend increased by 10 per cent to 16.2p, as earnings per share rose 15 per cent to 62p.

The advances came mainly from temperature and appliance controls, and the control systems division. The strong pound knocked £84m from the translation of pre-tax profits.

March). The restructuring will also increase net debt to £1.28bn (£1.08bn).

Ian Byatt, director general of Ofwat, the industry regulator, is expected to claw back higher than expected cost savings by water companies by imposing a large one-off price cut in 2000.

Thames said the proposed return to shareholders was equivalent to 75p a share.

Pre-tax profits for the year to March 31, aided by a net £1.7m from the release of provisions, rose to £418.8m (£371.8m).

£380m. Pre-tax profits of non regulated business rose by 46 per cent to £42.5m helped a doubling in international profits to £7.6m (£3.6m).

Interest charges rose to £74m (£57m) reflecting the impact of previous balance sheet restructuring, higher investment and to finance the windfall tax, which cost the company £231m.

The shares rose 3p to £9.97. They were helped by news that the group's contract to manage the water system in east Jakarta had been reinstated following the political uncertainty in Indonesia.

By Roger Taylor, Peter Norman and John Griffin

The prospects of a British-backed bid for Rolls-Royce Motor Cars faded yesterday after Vickers, the engineering group which is selling the luxury carmaker, made clear that it would be hard to give serious consideration to such an offer.

Vickers shareholders will vote this Friday on competing bids for Rolls-Royce from Volkswagen and BMW of Germany. A number of wealthy Rolls-Royce owners are hoping to put a higher offer to Vickers before then in an attempt to prevent Rolls-Royce falling into foreign hands.

However Vickers warned that new bids would be expected to match the certainty of the recommended £430m (£765m) bid from VW. Any offer from the Rolls-Royce owners would almost certainly have to be conditional as they have not yet done due diligence.

Vickers added that the agreement with VW, which allows for the price to be adjusted to reflect changes in stocks and investment, was expected to yield a final price of £460-£470m. Also, if shareholders rejected both the German offers, the sale process would be held up by up to four months.

Ferdinand Piech, VW's chairman, underlined his determination to move into the luxury car market by telling the Süddeutsche Zeitung that Skoda, VW's Czech subsidiary, had been ordered to develop an eight cylinder luxury car comparable with Audi's VW subsidiary, top of the range A8 model.

Thames to return £300m

By Andrew Taylor

Thames Water plans to return about £300m (£423m) to shareholders in a capital restructuring designed to avoid the tax penalties of a buy-back.

Britain's largest water company plans to reduce its equity by 8 per cent through an issue and repurchase of 8 shares.

The scheme, designed to reduce the company's cost of capital ahead of the forthcoming regulatory price review, will reduce shareholders funds to £1.85bn (£2.15bn at the end of

R-R owners' hopes fade

By Roger Taylor, Peter Norman and John Griffin

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In accordance with the provisions of the Certificates of Deposit, notice is hereby given that for the period from 29/5/98 to 30/11/98 the Certificates will carry an interest rate of 6.2125% per annum calculated on a principal amount of:

US\$7,981.34 per Certificate of US\$250,000.

Standard Chartered

Standard Chartered Bank

As Reference Agent

NOTICE TO THE BONDHOLDERS

US\$75,000,000

Lite-On Technology Corporation

Credit Enhanced Zero Coupon Convertible Bonds due 2002

(the "Company" and the "Bonds" respectively)

"Notice of Closed Period and Conversion Price Adjustment"

NOTICE IS HEREBY GIVEN to the holders of the outstanding Bonds of the Company that there will be a bonus issue of 50,000,000 new shares of NT\$10 each on the basis of 200 new shares for every 1,000 existing shares held pursuant to the Company's shareholders' resolution adopted at the Annual Shareholders Meeting held on May 19, 1998.

In accordance with the Terms and Conditions of the Bonds, the Conversion Right of the Bonds will be suspended from June 5 to June 25, 1998.

As a result of this Bonus Issue, the Conversion Price will be adjusted from NT\$25 per share to NT\$20.21 per share effective from June 25, 1998.

June 3, 1998

To Advertise

Your Legal Notices

Please contact

Melanie Miles on

Tel: +44 0171 873 3349

Fax: +44 0171 873 3064

Amethyst Funding Corporation

USD 200,000,000 Secured Assetbacked

Floating Rate Notes due 2003

For the interest period 1st June, 1998 to

1st July 1998 the Notes will carry a Rate

of interest of 5.9525% p.a. The Coupon

Amount per USD 100,000,000 Note will be

USD 4,773.81 payable on 1st July 1998.

The Principal Repayment Amount per

original USD 1,000,000 Note is

USD 10,000.00 on 1st June 1999.

BSI (London) S.A. dated 3 June 1998

TECHNOLOGY & MANAGEMENT

JOHN W. HUNT
ADVISES

How to survive the mid-career crisis

The onset of middle age and changing attitudes to work often lead to depression. But they can be dealt with positively

Dear Professor Hunt, I am a research scientist with a major supermarket chain. My wife tells me I am going through a mid-career crisis and that I will get over it. However, I do get very depressed and wonder if anyone really understands what I am going through.

Prof Hunt replies: Your wife may well be right. "Mid-career crisis" is the term used to refer to the time in a person's life when the consequences of their career choice - and its implications - begin to dawn on them. The timing of the crisis means all attendant feelings inevitably become tied up with concerns about the onset of middle age.

My research indicates that the critical time for the mid-career crisis is between the ages of 38 and 43, when one-third of men and women in executive positions become disillusioned with the whole concept of a career. They feel trapped. The realisation that they are ageing weighs ever heavier. Typically, they become depressed. Unlike previous bouts though, this depression persists. Sometimes it finds expression in a range of psychosomatic disorders. For a man, the crisis may happen at a time when his partner and children are embarking on their own exciting career adventures. He may require the support of his family to help him through, but there may not be a great deal available, as discussions about failure sit ill amid general enthusiasm about others' careers, others' future.

In the case of women, the onset is affected by whether or not they have withdrawn from the workforce, temporarily or permanently, in order to have children. Those women who left work

and subsequently returned tend to suffer from the crisis later, more often in their mid-40s. In some cases the depression is worsened by the fact that their choice of career was based on a desire for liberation from domesticity. Years down the line they may discover that the freedoms they had as mothers and supporters have been lost - and for what? An income of their own and a periodically interesting job?

For highly autonomous creative specialists, outside the general management hierarchy, the crisis is triggered by the realisation that their expertise has locked them into a career from which they cannot escape. What was once exciting becomes terrifyingly predictable. A high instance of suicide among such specialists in their mid-30s has been noted.

Manic-depressive behaviour, characterised by emotional highs and lows, is symptomatic of their problem. They blame the organisation - the way the work is structured or measured or the way resources are managed. Their solution is to try to change the organisation and it is their frenetic behaviour - endless analysis and proposed solutions - which begin to irritate others.

The second form of mid-career crisis identified occurs in those people motivated by power - typically the middle manager. To achieve their ambitions they must move up the hierarchy. However, as they get closer to the top the rate of progression decreases and the risk of disappointment increases. The psychological condition most frequently associated with mid-life crisis for such people is paranoia - a belief that colleagues, especially

peers, are out to get them. These managers become inactive, inert even, convinced that the problem has nothing to do with them. Little by little their work begins to decline. They concentrate more and more on their own problems. Physical disorders such as colds, bad backs, tennis elbows, headaches and old rugby injuries preoccupy them. And, rather like the Ancient Mariner, they construct a sad story of their career to date which is repeated to anyone who will listen. The distinguishing feature of this story is that they are the victim, not the hero.

Research shows that about 8 per cent of cases are permanently damaged by the experience of the mid-career crisis. They play the victim role, psychologically dying in the process. If they survive to retirement, their average life expectancy is only a further 13 months to two years. Once achievers have given in, the experience is that they decline rapidly.

For such victims, the most successful treatment may be compulsory redundancy. Declaring a person's position redundant, giving him or her a sizeable lump of money and asking them to leave forces people to confront the reality of their situation. Take away the organisational supports and more cases recover than if an approach of gentle persuasion were attempted - but this is a tough human resource practice to enforce.

The good news is that the majority of people who experience mid-career crisis recover. They adjust their priorities. They recognise that there are other goals in life, most of which are more important and more fulfilling than careerism. In short, they mellow. To conclude then, if you feel you are suffering from mid-career crisis, there are a number of things you should do. Do not rely on your employer to solve your problems: your career is your affair. Develop sporting, cultural and social interests outside work. Develop with your partner a life plan to ensure you are constantly learning and renewing yourself. Avoid the seductive luxury of adopting the role of the victim. Avoid telling your story repeatedly: it drives away the very people you need. Finally, invest time with your family and friends. In the final analysis they are all that matter.

John W. Hunt is Professor of Organisational Behaviour at London Business School and a consultant to private and public sector clients. This column appears fortnightly.

EVERYONE ELSE IN THE OFFICE IS SUFFERING FROM PARANOIA. WHY AM I BEING LEFT OUT?



CONTRACTS & TENDERS

TENDER NO: 77/3535

تندیر 96P

Mobarakeh Steel Company intends to purchase 3500 M/ton graphite powder with the following specification:

CHEMICAL COMPONENT

C.Fix: Min 99% P: Type 0.2%
Volatiles: Type 0.4% Size: 3mm (Min 88%)
Humidity: Type 0.3%
Ash: Type 0.45%
S: Type 0.7%

Interested bidders may obtain a set of bidding documents by the submission of a written application and payment of non-refundable fee of USD500, in favour of Mobarakeh Steel Company, through Bank Markazi Iran account no. 138. All bids must be delivered to below office on or before 30.7.98:

MOBARAKEH STEEL COMPANY
15 KMS SOUTH WEST OF MOBARAKEH
PO BOX 167 ESFAHAN IRAN
RAW MATERIAL AND ENERGY PURCHASING DEPARTMENT
FAX: 0098 31 327512 & 324324
TEL: 0098 3355 3707

MOBARAKEH STEEL COMPANY

INTERNET ELECTRONIC COMMERCE

Two-speed digital economy

Some sectors are likely to outstrip others, argues Paul Taylor

By popular consensus, Christmas marked a watershed for consumer-based electronic commerce, at least in the US. Suddenly it seemed that internet access had reached critical mass, fueling an explosion of interest in buying goods and services over the web.

Fast-paced start-ups like CDnow, which sells CDs over the net, and Amazon.com, the internet bookstore, blazed the trail but have been quickly followed by more conventional retailers desperate to hold on to customers and to ride the next marketing wave.

In a handful of sectors, including book and music retailing, computer hardware and software, travel and financial services, purchasing over the internet has grown rapidly during the past year, prompting a lively debate about whether business-to-business or business-to-consumer transactions will drive market growth faster.

So far the consumer market has captured most headlines. Dell Computer, for example, generates sales of more than \$8m a day from its web site, up from \$1m a day less than a year ago.

In financial services, nearly half the trades executed by Charles Schwab, America's largest discount brokerage house, were conducted online during the first three months of this year compared with one-third in the same period of 1997. Nearly 5m people traded stocks via the internet last year. The number is forecast to reach 10m-15m by 2000.

In the travel industry, independent travel agents

handled 80 per cent of US airline reservations two years ago. Today their share is down to 52 per cent as airlines deal directly with travellers over the telephone or via web sites.

These success stories have prompted other retailers to jump online. "People in business read these stories and say 'I want a piece of that,'" says Jim Barksdale, Netscape Communications' chief executive. They have also led to optimistic forecasts about the growth of consumer-based e-commerce.

Forrester Research, the Massachusetts IT consultancy, estimates that more than 20m Americans will spend money online this year and that US consumers investing and shopping

e-question

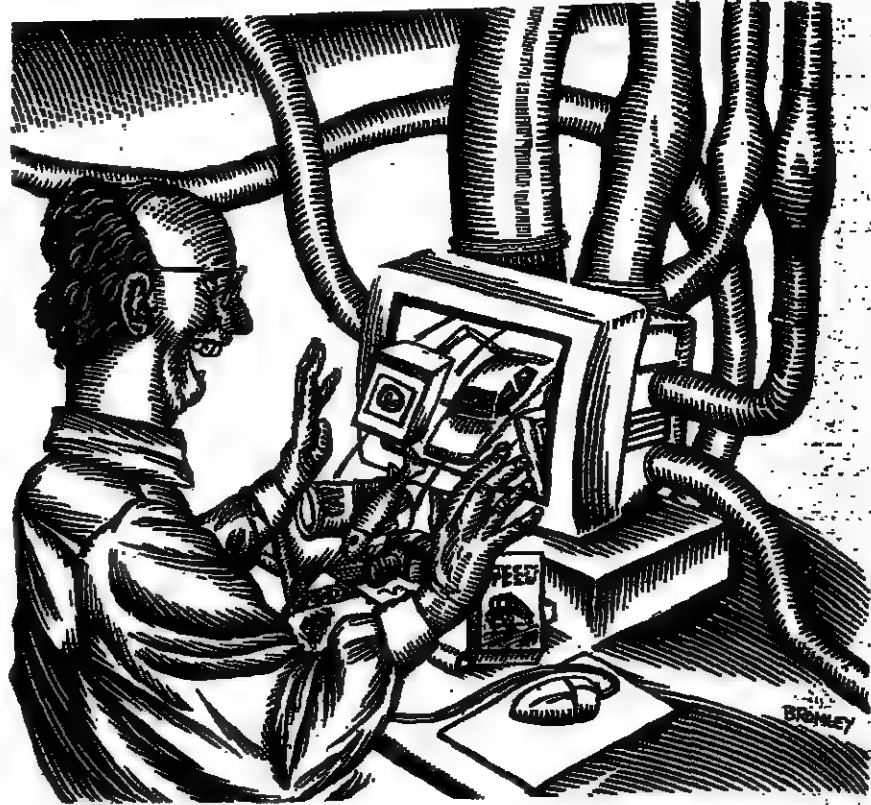
Which has better prospects, business-to-business or business-to-consumer?

online will jump from 5 per cent of the population to 30 per cent by the end of 1998.

DataMonitor, the research firm, has estimated that even in Europe, which lags the US in household PC penetration and in internet subscribers, online retail shopping will grow from \$108m last year to \$4.65bn by 2002.

Yet most companies with web sites still use them only as marketing tools. There is a growing consensus that business-to-business commerce will be much more important than consumer-based e-commerce, at least in the short term.

The US Commerce Department's recent report, *The Emerging Digital Economy*, notes: "Internet commerce is growing fastest among busi-



nesses. It is being used for co-ordination between the purchasing operations of a company and its suppliers, the logistics planners in a company and the transportation companies that warehouse and move its products; the sales organisations and the wholesalers or retailers that sell its products; and the consumer services and maintenance operations and the company's final customers."

Traditional electronic data interchange (EDI) service providers like GE Information Services confirm that low-cost web-based EDI services are extending the reach of traditional proprietary-based EDI systems and enabling smaller suppliers to adopt electronic trading.

Robin Duke-Woolley, an analyst with Schema, the London-based IT consultancy, estimates that during the next five years companies offering e-commerce services in Europe will jump from 250,000 to 3m and that e-commerce will account for nearly 25 per cent of their revenues. But he also believes that the volume of business-to-business transactions will be 10 times higher than business-to-consumer deals.

There are several reasons why analysts believe business-to-business e-commerce will grow faster than

consumer-based e-commerce. These include lingering consumer concerns about the security of internet-based transactions, bandwidth constraints, and more fundamental issues like the relatively low penetration of internet-enabled home PCs outside the US.

Another reason is that while the volume of consumer-based e-commerce has grown rapidly in some markets, the value of these transactions is often quite low - too low to justify the heavy costs of establishing and maintaining transaction-based web sites.

"The volume of transactions and their value are two quite different things," notes Larry Hirst, general manager of International Business Machine's banking, finance and securities European business.

Some analysts believe growth of e-commerce is already slowing as companies realise that the difficulties and costs of setting up a consumer-oriented e-commerce system have been underestimated.

International Data Corporation, the IT market analyst, estimates that large companies spent an average of \$600,000 to set up e-commerce sites last year. It notes in a recent report that the complexities and costs of running an online store are higher than many busi-

nesses expect, with "hidden costs".

Orum, the UK IT consultancy, argues that existing web users will not generate the predicted rates of e-commerce growth and that growth will have to come from new users.

Building and maintaining a loyal customer base may also challenge the consumer-orientated e-commerce pioneers. Unlike the physical world, where there is room for millions of shops each with its local customer base, on the internet the customer is only one click away from any other web site.

These uncertainties suggest that future development globally may be patchy.

Most IT consultants forecast a surge of business-to-business e-commerce activity across the board. Price Waterhouse, in its recently released annual technology forecast, estimates that business-to-business e-commerce doubled every six months between 1996 and 1997 and will accelerate to double every four months this year.

By 2002 Price Waterhouse estimates that the value of goods and services traded on the web will be \$450m - of this, PW suggests, only \$84m will be consumer purchases.

This is the third in a weekly series.

LOUISE KEHOE
EAGLE EYE

Heading for the speedway

The next generation of internet traffic will move at varying speeds over the network

Forget "the internet". Think of it as just one of the uses of the wires, optical fibres, cables and satellite links that form global communications networks. This is the way of the future: a convergence of voice, data and video communications services over networks of varying speeds and levels of

reliability, all sharing the same transport routes.

To a significant degree, this is already the way it works. Internet services piggyback on telephone lines or TV cable networks. Increasingly, telephony services are relayed via the internet. Before long, it may be difficult to differentiate one from another - whether in business or technical terms.

For years industry pundits have been predicting the "convergence" of the computing, consumer electronics and communications industries. Now it is happening, but in ways that few had anticipated.

On the front lines are the companies that build communications equipment - the exchanges of the telephony networks and the routers of the data networks. Lucent, the former equipment arm of AT&T, is applying technologies developed in the telephony world to data networks. At the same time, data networking industry leaders such as Cisco Systems are encroaching on telecommunications.

Behind them stand the internet service providers, telephone services and TV cable network operators which are all preparing to compete for the roles of "carriers" of communications traffic - voice, data or video.

The implications for consumers and business users are huge. Today, on the internet, all traffic is equal. There are no Ferraris or banded-up old Fords; every data packet travels at the same unpredictable speed. The next generation of networking equipment - drawing upon technologies developed for telephony - promises priority speedways for those willing to pay for premium services, enabling them to bypass congested

internet bottlenecks. On the future internet, they may know you are a dog.

It strikes home when your 12-year-old tells how she has responded to a salacious e-mail: "I'm only 13, leave me alone." Children pretend to be older when they are online, but they are naive enough to believe that adding one year will make them seem less vulnerable. It is time for action on the growing problem of offensive e-mail. "I'm only 13, leave me alone." Children pretend to be older when they are online, but they are naive enough to believe that adding one year will make them seem less vulnerable.

Proposed US legislation, which passed the Senate last month, would force junk e-mailers to identify themselves and to ensure that consumers were removed from their mailing lists upon request.

Yet even before the "anti-spam bill" goes to the House of Representatives, it is stirring controversy on the web, where some groups are attempting to organise an international protest. They feel the proposed legislation does not go far enough. The "opt-out" approach, requiring consumers to ask that their addresses be removed from lists, legitimises spamming, critics argue. Instead, commercial e-mail should be banned unless it is specifically invited by consumers, they contend.

The Forum for Responsible and Ethical E-mail (Free), also maintains that spammers could remain virtually anonymous, under the provisions of the bill, by using Post Office Box addresses and phone numbers for which callers incur charges. However, free speech groups such as

the Center for Democracy and Technology, praise the bill for narrowly targeting spam without threatening free speech.

Neither side is addressing the core of the problem. Spam is proliferating because it is profitable. The only way to put a real damper on offensive junk e-mail is to make it more expensive to distribute.

Currently, spammers are getting a free ride on the internet at the expense of other users. AOL and other internet service providers (ISPs) are being forced to expand the capacity of their networks to handle this traffic. These costs are passed on to consumers.

Since it is problematic to identify spammers - one man's junk e-mail is another man's opportunity - the only viable solution is to charge everybody for e-mail services according to the volume of e-mail they send.

For example, the first few hundred e-mails sent from an account each month might be free. After that, each e-mail sent would incur a charge. As ISPs move to offer differentiated levels of service, the volume of e-mail before charges are imposed could be among the terms. Of course, there are drawbacks. Mass e-mailers who distribute materials that consumers want to receive - news updates, newsletters and the like - might find themselves facing higher costs. Moreover, some may regard measuring the volume of their e-mail activity as an invasion of privacy.

However, "pay-per-use" schemes are well established in other forms of communication, so why should internet e-mail be different? The answer dates back to when the internet as a communications system for academics and is no longer tenable. In the absence of economic

"market forces", regulation may be inevitable. Far better if ISPs were to adopt a scheme that imposed charges on the heaviest users of e-mail. ISPs might prefer not to have the task of metering e-mail traffic and billing users, but ultimately they would benefit from lower costs if junk e-mail volumes declined.

Alternatively, they might find themselves profiting from such a scheme. However, those services that became recognised as conduits for junk e-mail might lose favour quickly with other users who could simply block their messages.

Consumers, accustomed to "free" e-mail, may balk at the prospect of paying to send messages. However, pay-per-use schemes geared to avoid charging the average user would be less unpalatable, especially if they promised to reduce the "scourge of spam".

It should not require an edict from the US government or any other legislative body to solve the problem of junk e-mail. If a few of the largest ISPs were to set an example, others would surely follow.

Measures such as those before Congress could serve to bolster the industry's efforts without creating a new regulatory regime. If oversight is needed, junk e-mail should be a matter for urgent consideration by the new international internet "governance" committee, when it is established. Although the primary responsibilities of this group will have to do with web domain name registration, it is worth noting that e-mail remains by far the more widespread application of the internet, despite the growth of the web.

Share your views in the Eagle Eye discussion group on the FT web site (www.ft.com) or contact Louise Kehoe by e-mail on louise@ft.com.

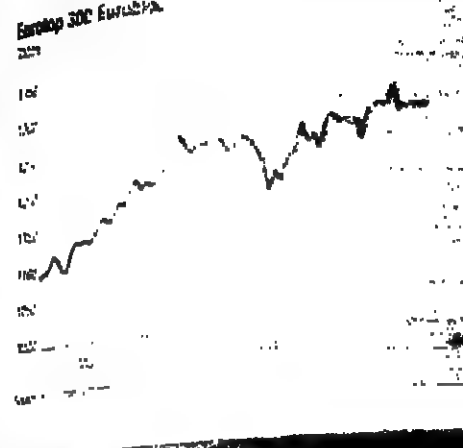
EQUITIES

Europe gets n

EUROPEAN OVERVIEW

By Martin Pickens
Financial Editor

Index	Change	Value
FTSE 100	+1.2	4,812.5
DAX	+0.8	2,812.5
Nikkei	+0.5	15,125.0
Hang Seng	+0.3	8,125.0
ASX	+0.2	3,125.0
IBEX	+0.1	2,125.0
SEMI	+0.1	1,125.0
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Index	Change	Value
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EURO PRICES

EQUITIES

Europe gets no lead from Wall St

EUROPEAN OVERVIEW

By Martin Dickson, Financial Editor

Trans-European equity indices rose modestly yesterday in lacklustre trading that showed no overall trend. Markets had little lead from Wall Street and remained concerned about the volatile Asian situation.

The FTSE Eurotop 300 index closed up 3.8 points at 1231.28, while the Eurotop 100 index ended 8.40 ahead at 2,820.31.

The Ebro 100 index, which tracks companies domiciled in states joining

European monetary union in the first wave, rose 5.98 to 1,035.29.

In the Government bond market, German bunds, likely to form the benchmark for much of the yield curve after the launch of the euro, closed generally higher. The yield on the 10-year was quoted late at around 103.01, up 0.09 from the previous session, for a yield of 4.85, down from 4.86.

Traders attributed the advance to a drift to quality from Asian and east European markets.

Food producers put in the strongest performance of the day, rising 2.31 per cent.

Denmark was up Ecu 7 at Ecu 250.91, North Sea rose Ecu 66.20 to Ecu 2,005.03, while Unilever was Ecu 1.80 ahead at Ecu 33.35.

Household goods and textiles rose 2.25 per cent, with the Ecu 18.6 at Ecu 493.38, and Henkel Ecu 4.30 higher at Ecu 86.51.

Pharmaceuticals ended 0.70 per cent lower, in spite of Monday's news of a merger between American Home Products and Monsanto.

Paper and packaging, by contrast, was given a boost by news that Stora of Sweden and Sando of Finland plan to merge. The sector

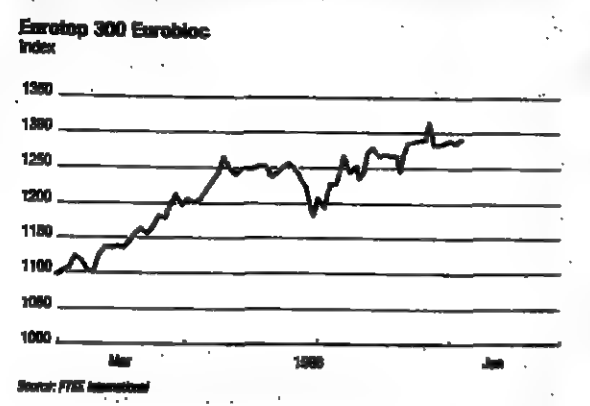
ended 1.05 per cent higher as analysts speculated on the next takeover candidates.

Stora was suspended, but UPM-Kymmene rose Ecu 0.70 to Ecu 1.50 at Ecu 71.13.

Telecoms finished 1.76 ahead. France Telecom was up Ecu 3 at Ecu 53.71, which dealers put down to general foreign interest in the French market, while Telefonica was Ecu 0.50 ahead at Ecu 41.11 on hopes that it would reach agreement with the Spanish government on how much to bill customers for local calls. Vodafone of the UK rose Ecu 0.40 to Ecu 10.55 after good results.

FTSE Actuaries Share Indices

Index	Value	Change	%
FTSE Eurotop 300	1231.28	+3.8	0.31
FTSE Eurotop 100	2820.31	+8.4	0.30
FTSE Eurotop 50	1035.29	+5.9	0.58



THREE MONTH EURO FUTURES (LFF) Euro points of 100%

Month	Open	Settle	Change	High	Low	Settle	Open
Jan	95.75	95.75	+0.00	95.75	95.75	95.75	95.75
Feb	95.80	95.80	+0.00	95.80	95.80	95.80	95.80
Mar	95.85	95.85	+0.00	95.85	95.85	95.85	95.85

THREE MONTH EURO OPTIONS (LFF) Euro points of 100%

Month	Open	Settle	Change	High	Low	Settle	Open
Jan	95.75	95.75	+0.00	95.75	95.75	95.75	95.75
Feb	95.80	95.80	+0.00	95.80	95.80	95.80	95.80
Mar	95.85	95.85	+0.00	95.85	95.85	95.85	95.85

THREE MONTH EURO FUTURES (LFF) Euro points of 100%

Month	Open	Settle	Change	High	Low	Settle	Open
Jan	95.75	95.75	+0.00	95.75	95.75	95.75	95.75
Feb	95.80	95.80	+0.00	95.80	95.80	95.80	95.80
Mar	95.85	95.85	+0.00	95.85	95.85	95.85	95.85

THREE MONTH EURO OPTIONS (LFF) Euro points of 100%

Month	Open	Settle	Change	High	Low	Settle	Open
Jan	95.75	95.75	+0.00	95.75	95.75	95.75	95.75
Feb	95.80	95.80	+0.00	95.80	95.80	95.80	95.80
Mar	95.85	95.85	+0.00	95.85	95.85	95.85	95.85

THREE MONTH EURO FUTURES (LFF) Euro points of 100%

Month	Open	Settle	Change	High	Low	Settle	Open
Jan	95.75	95.75	+0.00	95.75	95.75	95.75	95.75
Feb	95.80	95.80	+0.00	95.80	95.80	95.80	95.80
Mar	95.85	95.85	+0.00	95.85	95.85	95.85	95.85

THREE MONTH EURO OPTIONS (LFF) Euro points of 100%

Month	Open	Settle	Change	High	Low	Settle	Open
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Feb	95.80	95.80	+0.00	95.80	95.80	95.80	95.80
Mar	95.85	95.85	+0.00	95.85	95.85	95.85	95.85

THREE MONTH EURO FUTURES (LFF) Euro points of 100%

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Feb	95.80	95.80	+0.00	95.80	95.80	95.80	95.80
Mar	95.85	95.85	+0.00	95.85	95.85	95.85	95.85

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Feb	95.80	95.80	+0.00	95.80	95.80	95.80	95.80
Mar	95.85	95.85	+0.00	95.85	95.85	95.85	95.85

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THREE MONTH EURO FUTURES (LFF) Euro points of 100%

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Mar	95.85	95.85	+0.00	95.85	95.85	95.85	95.85

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THREE MONTH EURO FUTURES (LFF) Euro points of 100%

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Mar	95.85	95.85	+0.00	95.85	95.85	95.85	95.85

THREE MONTH EURO OPTIONS (LFF) Euro points of 100%

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THREE MONTH EURO OPTIONS (LFF) Euro points of 100%

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THREE MONTH EURO FUTURES (LFF) Euro points of 100%

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Mar	95.85	95.85	+0.00	95.85	95.85	95.85	95.85

THREE MONTH EURO OPTIONS (LFF) Euro points of 100%

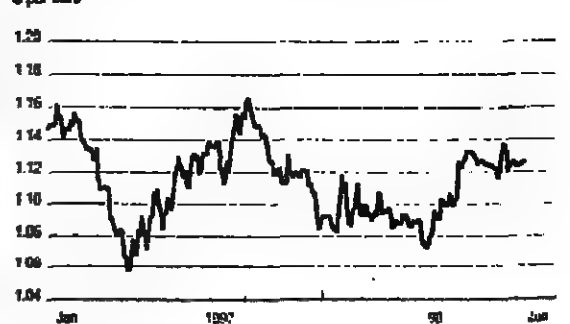
Month	Open	Settle	Change	High	Low	Settle	Open
Jan	95.75	95.75	+0.00	95.75	95.75	95.75	95.75
Feb	95.80	95.80	+0.00	95.80	95.80	95.80	95.80
Mar	95.85	95.85	+0.00	95.85	95.85	95.85	95.85

CURRENCIES & MONEY

FT SYNTHETIC EURO RATES

Country	Code	Rate	Change	%
Austria	AT	14.038501	+0.0010	+0.01
Belgium	BE	41.845331	+0.0002	+0.02
Canada	CA	36.919366	-0.0003	-0.01
Denmark	DK	7.461061	-0.0005	-0.01
France	FR	6.970599	+0.0003	+0.01
Germany	DE	6.707788	-0.0012	-0.02
Greece	GR	1.988572	+0.0002	+0.01
Ireland	IE	240.111317	-1.4239	-0.60
Italy	IT	241.261520	-1.0271	-0.44
Japan	JP	275.9284	-0.0000	0.00
Netherlands	NL	1870.304467	-0.1800	-0.01
Norway	NO	41.246331	+0.0002	+0.01
Portugal	PT	204.726565	-0.0024	-0.01
Spain	ES	167.253470	-0.0002	-0.01
Sweden	SE	8.427281	-0.0015	-0.02
Switzerland	CH	3.759178	-0.0000	0.00
United Kingdom	UK	8.082534	-0.0004	-0.01
United States	US	8.082534	-0.0004	-0.01
Other	OT	8.082534	-0.0004	-0.01

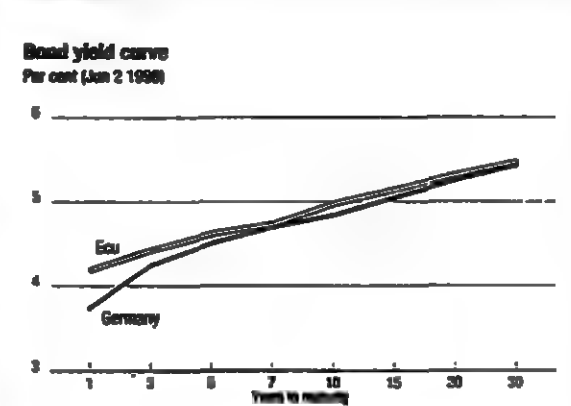
Synthetic Euro against the dollar



EUROZONE CURRENCY CONVERGENCE

Country	Rate	Change	%
Austria	13.7622	+0.0010	+0.01
Belgium	41.8453	+0.0002	+0.02
Canada	36.9194	-0.0003	-0.01
Denmark	7.4611	-0.0005	-0.01
France	6.9706	+0.0003	+0.01
Germany	6.7078	-0.0012	-0.02
Greece	1.9886	+0.0002	+0.01
Ireland	240.1113	-1.4239	-0.60
Italy	241.2615	-1.0271	-0.44
Japan	275.9284	-0.0000	0.00
Netherlands	1870.3045	-0.1800	-0.01
Norway	41.2463	+0.0002	+0.01
Portugal	204.7266	-0.0024	-0.01
Spain	167.2535	-0.0002	-0.01
Sweden	8.4273	-0.0015	-0.02
Switzerland	3.7592	-0.0000	0.00
United Kingdom	8.0825	-0.0004	-0.01
United States	8.0825	-0.0004	-0.01

BONDS



EUROZONE CORPORATE BONDS

Country	Rate	Change	%
Austria	13.7622	+0.0010	+0.01
Belgium	41.8453	+0.0002	+0.02
Canada	36.9194	-0.0003	-0.01
Denmark	7.4611	-0.0005	-0.01
France	6.9706	+0.0003	+0.01
Germany	6.7078	-0.0012	-0.02
Greece	1.9886	+0.0002	+0.01
Ireland	240.1113	-1.4239	-0.60
Italy	241.2615	-1.0271	-0.44
Japan	275.9284	-0.0000	0.00
Netherlands	1870.3045	-0.1800	-0.01
Norway	41.2463	+0.0002	+0.01
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Spain	167.2535	-0.0002	-0.01
Sweden	8.4273	-0.0015	-0.02
Switzerland	3.7592	-0.0000	0.00
United Kingdom	8.0825	-0.0004	-0.01
United States	8.0825	-0.0004	-0.01

GOVERNMENT BOND SPREADS vs ECU

Jan 02	2 yrs	5 yrs	7 yrs	10 yrs	20 yrs	30 yrs
Austria	-0.11	-0.02	+0.07	+0.00	-0.04	-0.04
Belgium	-0.12	-0.07	+0.00	+0.03	-0.01	-0.01
Canada	-0.20	+0.00	+0.06	+0.00	-0.01	-0.01
France	-0.25	-0.13	-0.03	-0.01	-0.08	-0.08
Germany	-0.23	-0.11	-0.02	-0.11	-0.07	-0.07
Greece	+0.07	+0.00	+0.13	+0.13	+0.08	+0.08
Ireland	-0.25	-0.30	+0.20	+0.19	+0.17	-0.17
Italy	-0.12	-0.02	+0.19	+0.03	-0.01	-0.01
Luxembourg	-0.18	-0.10	-0.03	-0.00	-0.08	-0.08
Netherlands	+0.02	+0.06	+0.12	+0.11	+0.27	+0.27
Portugal	-0.03	+0.03	+0.13	-0.08	-0.15	-0.15
Spain	-0.03	+0.03	+0.13	-0.08	-0.15	-0.15
Switzerland	-0.13	-0.14	-0.16	+0.19	+0.29	+0.29
Denmark	+0.50	+0.14	+0.33	+0.75	+0.81	+0.81
Finland	-0.22	-0.14	-0.10	-0.10	-0.10	-0.10
UK	+0.12	+0.24	+1.08	+0.59	+0.34	+0.34

Source: Interactive Data/FT International. Table lists average conversion constant money treasury bill

INTERNATIONAL CAPITAL MARKETS

Profit-taking takes toll in Europe

GOVERNMENT BONDS
By Jeremy Grant in London and
John Lacey in New York

Profit-taking took its toll yesterday on European markets, which ended mixed after equities staged modest comebacks and investors looked in vain for significant fresh news from Asia.

German bund futures in Frankfurt fell back from all-time highs shortly after the open, while UK gilts came under selling pressure after the 10-year yield dropped to a 30-year low. On Monday, gilt futures hit an all-time high.

In Australia, traders noted heavy activity with bonds falling as hopes of a cut in interest rates were hit by a renewed slide in the Australian dollar, to 12-year lows.

Analysts said further lead news from Asia could put bonds back on an upward

track, but the markets were increasingly focusing on Friday's release of payroll data in the US, and on the outcome of a possible meeting of G7 deputy finance ministers in Paris next week.

"There's still room for more bad news and commodity prices to come under pressure but we have these key events, and they have the potential to see intervention on dollar/yen, which would hit all bond markets," said James Mitchell, senior market strategist at Nomura.

Emerging market investors' nerves steadied slightly on hopes for a stabilisation package for Russia, where the stock market managed a 12 per cent rise.

US TREASURIES were little changed in quiet, early trading. Early in the afternoon, the benchmark 30-year bond was 4.1 per cent, yielding 5.82 per cent.

Shorter-term issues also made modest gains. The two-year note rose 1/8 to 99 1/8, yielding 5.53 per cent, while the 10-year note also climbed 1/8 to 100 1/8, yielding 5.53 per cent.

The latest sign of strength in the housing market barely shifted prices. The US Commerce Department reported that new-home sales in April reached a record high, led by rises in the south. Home sales for other regions were down 4.3 per cent, according to economists at Merrill Lynch. Today, new figures on housing completions are expected.

Separately, the Conference Board said its index of leading indicators rose 0.1 per cent in April, following a 0.2 per cent increase in March.

In GERMAN BONDS, the June future swept to a record high of 108.54 in early trading after a holiday on Monday. The contract then

retraced somewhat to settle at 108.10, against Friday's Frankfurt close of 107.94.

Traders said bonds were supported at the short end of the yield curve by continued flight-to-quality interest as equity markets remained weak in tone.

On the home front, investors will be looking to Thursday's release of German gross domestic product data for further stimulus.

Economists said there was likely to be some nervousness over the possibility of a relatively strong growth figure, although it was unlikely to rattle investors too much given continued data showing low German inflation.

Any further upward movement, however, would depend on the performance of US Treasuries, some traders said.

"I think it's very much driven by T-bonds, which are capped at 122. Before that

target is taken out, I think there's a slim chance that bonds will proceed to new highs," said Thomas Knebel, head of bond sales at BHF Bank in Frankfurt.

UK GILT futures paid little heed to news that consumer borrowing had weakened, preferring to lock in a correction downwards after the previous day's high.

British consumer credit rose by 566m in April, the smallest increase since September last year and down from a 1.4m rise in March, the Bank of England said.

That was seen as handing ammunition to advocates of no change in interest rates ahead of the Bank's monetary policy meeting, which ends on Thursday.

The benchmark September 10-year future settled 0.17 lower at 108.01 after trading in a 0.71 point range in volume of 16,000 contracts traded.

S&P cuts Thames Water rating

By Jeremy Grant

Standard & Poor's, the rating agency, has lowered the long-term debt ratings of Thames Water from AA- to A+, and its core utility subsidiary, Thames Water Utilities, from AA+ to A+.

The move reflected a decision by the UK's largest water company, announced yesterday, to restructure its balance sheet through a £200m share buy-back scheme. Its short-term debt rating was unaffected.

S&P said that Thames' debt service protection measures were expected to deteriorate over the next two years as the buy-back was to be financed through additional borrowings.

The proportion of its debt to total capital was seen rising from 36 per cent currently to 44 per cent by 2000.

"This weakening of Thames' financial profile, coupled with what is expected to be a harsher regulatory and political climate for UK water and sewerage companies over the next few years in 1998, has led Standard & Poor's to believe that an adjustment to Thames' long-term ratings is appropriate at this stage," the agency said.

Ofwat, the UK water regulator, is expected next year to decide new price limits for water companies to take effect in 2000. Some analysts suggest water tariffs could be cut by up to 30 per cent.

S&P said that Thames still has a "strong business profile" stemming from a solid customer base.

The company was also supported by robust cash flow and sufficient back-log liquidity in the form of committed bank lines, S&P said.

CBOT may adopt DTB trade system

By Muel Tait in Chicago and Edward Luce in London

The Chicago Board of Trade, the largest futures exchange in the world, is considering adopting the electronic trading system developed by Deutsche Terminbörse, the German derivatives exchange.

The DTB's success in building up trading in the bond future has triggered significant reforms at the London International Financial Futures and Options Exchange.

Pat Arbor, CBOT chairman, said that no decision had been made, but he expected the matter to be resolved fairly shortly.

At present, the CBOT has its own electronic trading system, Project A, used only for after-hours trading.

Project A terminals have been established in various US cities and in London. The system handled about \$m contracts last year and this is expected to increase significantly in 1998.

However, under an agreement reached this year, the CBOT and Eurex - the German-Swiss exchange that will emerge from the merger between the DTB and the Schweizer Börse - are due to create a strategic alliance, allowing members of both to trade each other's products.

The first phase of the agreement, which is due to be operational by the final quarter of 1998, calls for "a common global communications network" for Project A and Eurex banking officials.

In March, the exchanges said the aim at this stage was for Project A users to "be able to emulate the

Eurex screen on Project A workstations". This would be followed by a second phase, due to be operational in mid-1999, when Project A and Eurex users would be able to access both markets from a single screen.

All orders routed to CBOT members would still be executed via the conventional trading floor during regular Chicago trading hours.

However, according to Mr Arbor, debate is continuing on "whether to use the DTB to run the system or whether to integrate" the two electronic trading platforms.

Although both are trading matching systems, Project A works on an algorithmic system; the DTB's on a first, first out basis.

Mr Arbor added that one of the issues was whether options functionality could be developed within the DTB's system.

From the outset, the CBOT has argued that the Eurex alliance would help bring down costs, and that sharing a network with Eurex would cut "considerably" the almost \$3,000 a month expense of a Project A terminal in London.

The DTB's electronic system has full authorisation from the Commodity Futures Trading Commission in the US, where the DTB has 13 institutional members.

"It would make a lot of sense for the CBOT to use the DTB system because there is no point in inventing the wheel," said a Frankfurt banking official.

The DTB is understood to be keen to persuade the CBOT to adopt its screen-trading system.

Fannie Mae in seven-year deal

INTERNATIONAL BONDS
By Edward Luce

Fannie Mae, the US mortgage financier, will today open up the latest stage of its benchmark programme with a \$3.5bn seven-year bond.

However, the offering, which means Fannie Mae now has benchmark jumbos in three, five, seven and 10 years, comes at a sticky time in the dollar-denominated sector, which has seen some spread-widening in recent weeks.

Officials at Fannie Mae said the bond would be priced at 30 to 31 basis points over the 2005 US Treasury. This represented a

spread of more like 37 or 38 basis points over the five-year US Treasury, the usual benchmark for seven-year dollar bonds.

"This looks a little on the generous side," said a bond dealer in London. "But Fannie Mae is sticking to its commitment to issue a benchmark every month, whatever the conditions."

The global offering will be led by J.P. Morgan, Merrill Lynch and Goldman Sachs.

LAFARGE, the France-based construction company, provided a rare European-dominated offering in the euro-denominated market with a \$500m issue.

The eight-year bond, priced at 40 basis points over the OAT-ECU benchmark,

New international bond issues

Borrower	Amount (\$m)	Coupon (%)	Price	Maturity	First	Book-runner
IN US DOLLARS						
National Bank Corp	800	6 1/8	98.25	Jul 2003	0.175	Merrill Lynch
Key Bank National Assoc	500	6 1/8	100.0125	Jan 2003	0.175	Morgan Stanley
British Gas Finance plc	250	6 1/8	98.25	Jun 2003	0.175	Barclays
IN EURO CURRENCY						
Bank of Nova Scotia	400	6 1/8	100.048	Jun 2001	0.125	CSFB
Latvia	500	5 1/8	98.43	Jun 2003	0.350	+40 B
IN LUXEMBOURG FRANC						
BSL International	250	10 1/8	102.00	Jul 2000	2.00	Credit Europeen
IN AUSTRALIAN DOLLARS						
Baystate Landmark	100	6 1/8	101.15	Jul 2003	1.875	TD Securities
IN NEW ZEALAND DOLLARS						
Commerzbank	100	7 1/8	100.675	Jun 2000	1.125	TD Securities
IN ITALIAN LIRA						
Antrovanto Ind Bank	600m	6 1/8	98.735	Jun 2003	0.500	Credito Italiano

will help reinforce the company's acquisition last year of Redwood, the London-based, also managed by Paribas, is also designed as a strategic offering to bring in pan-European investors.

"We don't expect an avalanche of European corporate offerings in the euro, but there will be many more as the market progresses," said an official.

NationsBank, the US bank recently merged with Bank

of America, made its annual trip to the eurozone market with an \$800m offering.

The deal was increased from an initially planned \$500m after strong demand from investors.

WORLD BOND PRICES

BENCHMARK GOVERNMENT BONDS

Country	Issue	Yield	Price	Change
Australia	04/08	7.300	103.950	+0.25
Canada	05/08	6.800	103.000	+0.10
Denmark	05/08	7.200	103.000	+0.10
France	05/08	6.500	103.000	+0.10
Germany	05/08	6.500	103.000	+0.10
Italy	05/08	6.500	103.000	+0.10
Japan	05/08	6.500	103.000	+0.10
Netherlands	05/08	6.500	103.000	+0.10
New Zealand	05/08	6.500	103.000	+0.10
Norway	05/08	6.500	103.000	+0.10
Portugal	05/08	6.500	103.000	+0.10
Spain	05/08	6.500	103.000	+0.10
Sweden	05/08	6.500	103.000	+0.10
Switzerland	05/08	6.500	103.000	+0.10
UK	05/08	6.500	103.000	+0.10
US	05/08	6.500	103.000	+0.10

BOND FUTURES AND OPTIONS

France

Contract	Open	Settle	Change	High	Low	Est. vol.	Open int.
Open	104.37	104.37	+0.18	104.41	104.33	30	10,822
Settle	104.38	104.38	+0.18	104.41	104.33	30	10,822

US CORPORATE BONDS

Contract	Open	Settle	Change	High	Low	Est. vol.	Open int.
Open	104.37	104.37	+0.18	104.41	104.33	30	10,822
Settle	104.38	104.38	+0.18	104.41	104.33	30	10,822

INTERNATIONAL BONDS

US CORPORATE BONDS

Contract	Open	Settle	Change	High	Low	Est. vol.	Open int.
Open	104.37	104.37	+0.18	104.41	104.33	30	10,822
Settle	104.38	104.38	+0.18	104.41	104.33	30	10,822

UK BONDS

UK BONDS

Contract	Open	Settle	Change	High	Low	Est. vol.	Open int.
Open	104.37	104.37	+0.18	104.41	104.33	30	10,822
Settle	104.38	104.38	+0.18	104.41	104.33	30	10,822

10 YEAR BOND SPREADS

10 YEAR BOND SPREADS

Country	Issue	Yield	Price	Change
Australia	04/08	7.300	103.950	+0.25
Canada	05/08	6.800	103.000	+0.10
Denmark	05/08	7.200	103.000	+0.10
France	05/08	6.500	103.000	+0.10
Germany	05/08	6.500	103.000	+0.10
Italy	05/08	6.500	103.000	+0.10
Japan	05/08	6.500	103.000	+0.10
Netherlands	05/08	6.500	103.000	+0.10
New Zealand	05/08	6.500	103.000	+0.10
Norway	05/08	6.500	103.000	+0.10
Portugal	05/08	6.500	103.000	+0.10
Spain	05/08	6.500	103.000	+0.10
Sweden	05/08	6.500	103.000	+0.10
Switzerland	05/08	6.500	103.000	+0.10
UK	05/08	6.500	103.000	+0.10
US	05/08	6.500	103.000	+0.10

UK GILTS PRICES

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Settle	104.38	104.38	+0.18	104.41	104.33	30	10,822

UK GILTS PRICES

UK GILTS PRICES

Contract	Open	Settle	Change	High	Low	Est. vol.	Open int.
Open	104.37	104.37	+0.18	104.41	104.33	30	10,822
Settle	104.38	104.38	+0.18	104.41	104.33	30	10,822

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Yen rallies

MARKETS REPORT
By Simon Ayres

The yen rallied sharply yesterday, ending the week at a 12-month high of 146.10 against the dollar. The rally was driven by a combination of factors, including a strong performance in the Japanese stock market and a decline in the dollar.

The Japanese stock market, the Nikkei 225, rose 1.2 per cent to 14,500. The rally was led by the technology sector, with the Nikkei's semiconductor index up 2.5 per cent.

The dollar, on the other hand, fell 0.5 per cent to 146.10 against the yen. The decline was driven by a decline in the US stock market, which ended the week down 0.2 per cent.

The yen's rally was also supported by a decline in the Japanese government bond yield, which fell 0.1 per cent to 4.5 per cent. The decline in the yield was driven by a decline in the Japanese government's borrowing, which fell 0.1 per cent.

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CHANGE CROSS RATES

Country	Rate	Change
Australia	1.48	+0.01
Canada	0.72	+0.01
Denmark	6.46	+0.01
France	6.55	+0.01
Germany	6.55	+0.01
Italy	6.55	+0.01
Japan	146.10	+0.01
Netherlands	6.55	+0.01
New Zealand	6.55	+0.01
Norway	6.55	+0.01
Portugal	6.55	+0.01
Spain	6.55	+0.01
Sweden	6.55	+0.01
Switzerland	6.55	+0.01
UK	6.55	+0.01
US	146.10	+0.01

UK INTEREST RATES

UK INTEREST RATES

Rate	Change
3 month	+0.01
6 month	+0.01
12 month	+0.01
2 year	+0.01
5 year	+0.01
10 year	+0.01

UK MONEY RATES

UK MONEY RATES

Rate	Change
3 month	+0.01
6 month	+0.01
12 month	+0.01
2 year	+0.01
5 year	+0.01
10 year	+0.01

BASE LENDING RATES

BASE LENDING RATES

Rate	Change
3 month	+0.01
6 month	+0.01
12 month	+0.01
2 year	+0.01
5 year	+0.01
10 year	+0.01

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CURRENCIES & MONEY

Yen rallies on prospect of G7 cavalry

MARKETS REPORT

By Simon Kuper

The yen rebounded on reports that the Group of Seven industrialised nations would rise in to save the currency next week. Most Asian currencies also recovered from their sharp falls on Monday. If the reports are true, G7 deputies will discuss foreign exchange moves and the Russian crisis at an international meeting in Paris next Tuesday and Wednesday.

Some in the market think the G7 will agree to intervene in the market to support the yen. However, few foreign exchange strategists believe the G7 will manage to buy it for long. The dollar yesterday dropped Y0.8 against the yen, but the US currency's next target is seen as Y142, the high it hit in June 1997. The dollar has strong technical support at

about Y138.4.

The yen rallied Y0.5 against the D-Mark to Y77.92. Dollar/D-Mark closed at DM1.782, within its recent narrow range.

The pressure on the ruble eased after reports that industrialised nations would put together a package to support the flagging Russian economy.

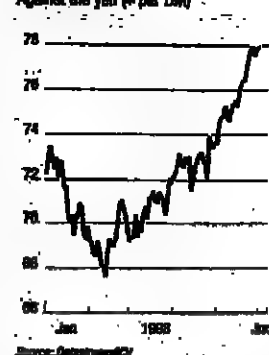
The G7 deputies in Paris next week will be catching the start of the football World Cup rather than saving the yen, most currency strategists believe. Michael Rosenberg, global head of fixed income research at Merrill Lynch in New York, pointed out that Robert Rubin, the US treasury secretary, has already made it

clear that he supports a strong dollar. At the last G7 meetings, in the UK last month, the US refused to join Japan in threatening intervention for the yen. Yesterday Etsuko Sakakibara, the senior Japanese finance ministry official once known as "Mr Yen", said the market determined the exchange rate.

Avishav Persaud, global head of currency research at J.P. Morgan in London, said: "Intervention to support the yen while the Bank of Japan appears to have a bias to ease interest rates further and the Federal Reserve has a bias to restrict it is bound to fail. Central banks are never keen to lose credibility through failed intervention." Philippa Mahgreh, currency strategist at Bankers Trust in London, said she had gathered that the G7 next week would focus more on Russia's situation than on the yen.

Gerard Lyons, chief econo-

D-Mark Against the yen (¥ per DM)



that could set off new devaluations all over Asia.

Mr Rosenberg and Marc Chandler, senior currency economist at Deutsche Morgan Grenfell in New York, are prepared to accept that the dollar might sag briefly until the G7 meeting is over. Mr Rosenberg said Merrill's quarterly survey of global investors showed they are holding far more dollars in their portfolios than their own guidelines suggest they should. They were therefore keen to buy more yen, particularly since Y140 is a psychological barrier for the dollar, and a level at which Japan might intervene unilaterally. Mr Rosenberg fore-

saw the dollar dropping back to Y135 or Y136 before investors bought back the currency and took it to "Y150, Y160 or even higher".

The pound is still overvalued by about 25 per cent against the D-Mark, even though it has fallen 20 pips in the last two months, according to a study by the Institute for International Economics in Washington. It says the pound's sustainable level against the D-Mark in the medium term is between DM2.10 and DM2.30.

What gives the study additional force is the identity of its authors, Simon Wren-Lewis and Rebecca Driver. Before the pound joined the European exchange-rate mechanism in 1990, Mr Wren-Lewis argued that its entry level of DM2.95 was unsustainable. Sterling is expected to join European monetary union in the next few years at about DM2.60 to the D-Mark.

OTHER CURRENCIES

Currency	Unit	Rate
Swiss Franc	100	1.4800
Italian Lira	1,000	2036.27
Spanish Peseta	100	166.64
Portuguese Escudo	200	200.48
Belgian Franc	100	36.36
Dutch Guilder	100	3.7603
Austrian Schilling	100	13.7603
Japanese Yen	100	138.40

POUND SPOT FORWARD AGAINST THE POUND

Month	Spot	1m	3m	6m	12m
Jan	1.5800	1.5800	1.5800	1.5800	1.5800
Feb	1.5800	1.5800	1.5800	1.5800	1.5800
Mar	1.5800	1.5800	1.5800	1.5800	1.5800
Apr	1.5800	1.5800	1.5800	1.5800	1.5800
May	1.5800	1.5800	1.5800	1.5800	1.5800
Jun	1.5800	1.5800	1.5800	1.5800	1.5800

DOLLAR SPOT FORWARD AGAINST THE DOLLAR

Month	Spot	1m	3m	6m	12m
Jan	1.5800	1.5800	1.5800	1.5800	1.5800
Feb	1.5800	1.5800	1.5800	1.5800	1.5800
Mar	1.5800	1.5800	1.5800	1.5800	1.5800
Apr	1.5800	1.5800	1.5800	1.5800	1.5800
May	1.5800	1.5800	1.5800	1.5800	1.5800
Jun	1.5800	1.5800	1.5800	1.5800	1.5800

CROSS RATES AND DERIVATIVES

Currency	Rate
Yen/Dollar	138.40
Yen/D-Mark	77.92
Dollar/D-Mark	1.782
Pound/Dollar	1.5800
Pound/D-Mark	1.5800

UK INTEREST RATES

Term	Rate
3m	5.50%
6m	5.50%
12m	5.50%
2y	5.50%
3y	5.50%
5y	5.50%

LONDON MONEY RATES

Instrument	Rate
3m Bank Bill	5.50%
6m Bank Bill	5.50%
12m Bank Bill	5.50%
3m Treasury Bill	5.50%
6m Treasury Bill	5.50%
12m Treasury Bill	5.50%

EMS EUROPEAN CURRENCY UNIT RATES

Currency	Rate
French Franc	6.5595
Italian Lira	2036.27
Spanish Peseta	166.64
Portuguese Escudo	200.48
Belgian Franc	36.36
Dutch Guilder	3.7603

BASE LENDING RATES

Bank	Rate
Barclays	5.50%
HSBC	5.50%
Deutsche	5.50%
JP Morgan	5.50%
Wells Fargo	5.50%
Citigroup	5.50%

US TREASURY BILL FUTURES (90 DAY) 100% (per 100)

Month	Rate
Jan	1.5800
Feb	1.5800
Mar	1.5800
Apr	1.5800
May	1.5800
Jun	1.5800

US TREASURY BILL FUTURES (90 DAY) 100% (per 100)

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Mar	1.5800
Apr	1.5800
May	1.5800
Jun	1.5800

WORLD INTEREST RATES

MONEY RATES

Currency	Rate
Yen/Dollar	138.40
Yen/D-Mark	77.92
Dollar/D-Mark	1.782
Pound/Dollar	1.5800
Pound/D-Mark	1.5800

EURO CURRENCY INTEREST RATES

Currency	Rate
French Franc	6.5595
Italian Lira	2036.27
Spanish Peseta	166.64
Portuguese Escudo	200.48
Belgian Franc	36.36
Dutch Guilder	3.7603

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COMMODITIES & AGRICULTURE

Egypt sprays rice crops with poison

By Mark Hubbard in Cairo

Armed Egyptian troops are overseeing the use of chemical weed killers to destroy rice seedlings the government says have been illegally planted.

For the past two weeks, the Egyptian government has been destroying rice nurseries in areas it has not designated for rice growing.

The move has been triggered by a policy designed to save 3bn cubic metres of water a year by limiting rice production, introducing less water-intensive varieties and

forcing farmers to shift to corn production.

Current rice production absorbs 12bn cubic metres of Egypt's Nile water - 20 per cent of the country's total quota, according to the 1989 agreement with Sudan.

Up to 800 farms in the Qalyubia governorate north of Cairo have been visited by government officials guarded by troops. The officials have sprayed the seedlings with a non-selective herbicide, Basta 20 SL.

Wadi el-Nil Company for Agricultural Development, which produces the weed

killer under licence from the Agrevo agricultural subsidiary of Hoechst, was concerned to learn the product was being used to kill crops in fields from which drainage water will seep into the irrigation system.

"No tests have been made on the residual effect of Basta 20 when it is allowed to spread in irrigation water," Shehata Abdel Khalek, marketing manager, said.

Last yesterday one local governor agreed to curtail the use of chemicals following a demand by Nadia Mak-

ram Obied, the environment minister, who had not been informed that chemicals were being used.

Farmers have so far been meeting the arrival of the troops and officials without resistance. But on the troops' departure they have been flooding the nurseries with fresh irrigation water to wash away the herbicide.

"The farmers don't trust the government on the water," said Mourad el-Essawi who grows rice on land north of Cairo. "For 10 years I have been planting rice and it hasn't affected

the water supply. The government tells us every year: don't plant rice. But every year everybody does it."

Rice production can earn farmers three times the profit of corn.

"These farmers are growing rice through encroachment," said Abdelrahman Shalabi, under-secretary at the Ministry of Public Works and Water Resources, which has encouraged crop destruction as a way of increasing Egypt's water supply. "They are fined every year. If we don't enforce the law, the problem will be aggravated."

Metal prices under pressure

By Peter John and Robert Carline

Metal prices were under pressure on the London Metal Exchange, with speculative trades pushing most contracts lower.

The slide was led by copper which ended the session down \$22 at \$1,662, even though traders in the physical market said the premium remained steady.

Aluminium was unable to hold above \$1,350 and finished the day down \$9 at \$1,347. The contract felt further pressure from reports that Russian productivity is rising and instead of being absorbed domestically is being released for export because of the downturn in the Russian economy.

Nickel fell to a 4½-year low, down \$70 to \$4,650.

On Liffe, cocoa, stabilised after early weakness and most contracts ended higher. The front-month contracts each ended up 21, with July at \$1,085 a tonne and September at \$1,118.

Oil prices were range-bound as traders awaited the latest weekly inventory figures from the US.

London's bellwether futures contract - Brent Blend for July delivery - was \$14.35 a barrel in late trading on the International Petroleum Exchange, up two cents on Monday's close.

Traders are keen to see whether US stocks, which have recently risen to levels last seen five years ago, are declining in response to high refinery runs.

Oil markets are also focused on possible further production cuts by the Organisation of Petroleum Exporting Countries. But many traders say a widely expected 600,000 barrel a day reduction by Opec is already factored into prices.

NEWS DIGEST

AUSTRALIA

BHP sells Hunter Valley coal mine to Glencore

BHP has sold the Mt Owen thermal coal mine in the Hunter Valley, Australia, to Glencore, the Switzerland-based trading group, for \$138m (US\$250m). The purchase gives Glencore access to 3.5m tonnes a year of thermal coal at about \$40 a tonne of production, compared with \$100 a tonne of annual production for a typical new mine.

Fleming estimates BHP spent \$350m to \$350m on Mt Owen but had written it down to roughly \$140m in 1997 so there would be no material loss on the sale. Neither should there be any impact on BHP's earnings, Kenneth Gooding

GREECE

Perlite producer expands

Silver & Baryte Mining Ores, Greece's biggest mining company, has paid DM65.9m (\$87m) to acquire 87.5 per cent of Chavi Minen, a German perlite producer with mines on the Aegean island of Melos and a processing plant in Spain. Chavi was controlled by Cookson Matthey Ceramics of the UK.

Silver & Baryte, the world's largest perlite producer, is diversifying its sources of perlite and bentonite. It already exports 900,000 tonnes a year of perlite and bentonite from its own mines on Melos. It acquired perlite mines in Turkey, Sardinia and China and took over a state-owned bentonite mine in Georgia this year. Kerin Hope, Athens

JUTE

India, Bangladesh crops fall

Jute harvests in India and Bangladesh, the world's largest producers, will be 30 to 35 per cent lower in the 1998-99 season (July to June) because farmers have switched to paddy and oil seeds for better returns.

Farmers in India and Bangladesh paid a very heavy price for producing bumper crops in 1997-98. They sold jute at prices that didn't cover costs. For the major part of the season in India, jute was traded at well below the statutory minimum prices, said an Indian Jute Sales Association official.

Sushil Karivale, analyst, said India farmers received an average price of Rs980 a quintal of jute in the current season, against Rs1,013 last year and Rs1,433 in 1995-96. According to a survey by the JBA, sowing is over in the main jute growing areas of India.

"The weather is extremely favourable for the jute crop, which needs alternate rain and sunshine. The standing crop is in good shape and if the monsoon is normal, as has been predicted, the 1998-99 crop will be 7.5m bales against nearly 10m bales this time," said the JBA.

S. K. Bhattacharya, director-general of the India Jute Mills Association, said, "India jute crops will not be less than 6m bales next season in spite of the shrinkage of land. The weather is ensuring improvement in productivity and quality of jute."

According to trade officials, Bangladesh will harvest a crop of 4.5m bales in 1998-99, down 30 per cent on the current season's production of 6.5m bales. Kunal Bose, Calcutta

Rio Tinto gives green light for Hail Creek

Kenneth Gooding, Mining Correspondent

Rio Tinto, the world's biggest mining group, has surprised rivals and analysts by giving the go-ahead for a coal mine at Hail Creek, central Queensland, Australia, at a cost of some \$450m (US\$246m).

Development of Hail Creek has been mooted in the Australian coal industry for nearly 20 years and approval comes at a time when prices are low and the industry is only marginally profitable.

Competitors said Rio Tinto's move would affect the entire ASBm coal export market. "There will be addi-

tional pressure on costs and possibly on prices," said an official at Broken Hill Pty, Australia's biggest coal producer.

Nevertheless, Leigh Clifford, chief executive of Rio Tinto's energy group, hailed the move as "a vote of confidence in the future of the Australian coal industry".

This also surprised some analysts, who pointed out that Rio Tinto was embroiled in a sometimes bitter and protracted dispute with unions over its attempts to improve productivity and profitability at its coal operations in New South Wales.

However, at the annual

meeting last month, Bob Wilson, Rio Tinto chairman, said that although the price of change at the New South Wales mines was slower than elsewhere, "progress has now begun and seems to have gained momentum".

Hail Creek is a joint venture between Rio Tinto, with 83 per cent, and two Japanese groups, Marubeni, with 5.3 per cent, and Sumitomo, 2.67 per cent. Discussions are "well advanced" for Nippon Steel to take an equity stake.

The open cut mine will provide up to 5.5m tonnes a year of hard coking coal for the export market, with shipments scheduled to begin in 2000.



Bob Wilson's 'Progress has gained momentum'

About 880 direct jobs will be created and annual export earnings at full capacity will be roughly \$630m.

Nick Hatch, analyst at Flemings Global Mining

N Sea oil operators warn of slowdown

By Robert Carline

Operators of oil fields in the UK sector of the North Sea yesterday warned of a possible sharp fall-off in exploration and appraisal drilling by the end of the year if the government raises offshore taxes. They said such a development would affect production levels in the UK.

The warning came as the UK Offshore Operator's Association, the trade group representing the 36 companies that explore for and produce oil and gas in UK waters, issued a new study supporting their view that higher offshore taxes would damage the competitiveness of the offshore industry.

The UK is often cited as

having one of the world's most generous tax regimes for developing offshore oil and gas discoveries. But the latest study suggests the attractiveness of exploring in the UK diminishes substantially when "full-cycle project costs" were compared with those of six other mature oil producing countries.

The study, prepared by Petroconsultants of Geneva, said the UK's relatively high cost base and low probability of making a large discovery require an offsetting "low government tax take" to ensure steady investment.

The UK oil industry has been lobbying in recent weeks to persuade the government to back down from

its intention to squeeze more taxes out of the sector.

Oilmen said low oil prices have reinforced their message that the industry has "no spare taxable capacity".

A government consultation document detailing two alternative tax proposals was due to have been published in mid-April, but has yet to emerge.

COMMODITIES PRICES

BASE METALS

LONDON METAL EXCHANGE

Prices from Antiquated Metal Trading

All aluminium, 99.99% purity (per tonne)

Copper, 99.99%

Lead, 99.99%

Nickel, 99.99%

Zinc, 99.99%

Aluminium, 99.99%

Copper, 99.99%

Lead, 99.99%

Nickel, 99.99%

Zinc, 99.99%

Aluminium, 99.99%

Copper, 99.99%

Lead, 99.99%

Nickel, 99.99%

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Aluminium, 99.99%

Copper, 99.99%

Lead, 99.99%

Nickel, 99.99%

Zinc, 99.99%

Aluminium, 99.99%

Copper, 99.99%

Lead, 99.99%

PRECIOUS METALS continued

All gold, 999.9 (per ounce, \$ per ounce)

Silver, 999.9 (per ounce, \$ per ounce)

Platinum, 999.9 (per ounce, \$ per ounce)

Palladium, 999.9 (per ounce, \$ per ounce)

Rhodium, 999.9 (per ounce, \$ per ounce)

Iridium, 999.9 (per ounce, \$ per ounce)

Ruthenium, 999.9 (per ounce, \$ per ounce)

Cobalt, 999.9 (per ounce, \$ per ounce)

Nickel, 999.9 (per ounce, \$ per ounce)

Copper, 999.9 (per ounce, \$ per ounce)

Zinc, 999.9 (per ounce, \$ per ounce)

Aluminium, 999.9 (per ounce, \$ per ounce)

Lead, 999.9 (per ounce, \$ per ounce)

Tin, 999.9 (per ounce, \$ per ounce)

Antimony, 999.9 (per ounce, \$ per ounce)

Arsenic, 999.9 (per ounce, \$ per ounce)

Bismuth, 999.9 (per ounce, \$ per ounce)

Cadmium, 999.9 (per ounce, \$ per ounce)

Mercury, 999.9 (per ounce, \$ per ounce)

Manganese, 999.9 (per ounce, \$ per ounce)

Selenium, 999.9 (per ounce, \$ per ounce)

Tellurium, 999.9 (per ounce, \$ per ounce)

Vanadium, 999.9 (per ounce, \$ per ounce)

Chromium, 999.9 (per ounce, \$ per ounce)

Molybdenum, 999.9 (per ounce, \$ per ounce)

Niobium, 999.9 (per ounce, \$ per ounce)

Zirconium, 999.9 (per ounce, \$ per ounce)

Hafnium, 999.9 (per ounce, \$ per ounce)

Tantalum, 999.9 (per ounce, \$ per ounce)

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Zirconium, 999.9 (per ounce, \$ per ounce)

GRAINS AND OIL SEEDS

All wheat, 99.99% (per bushel, \$ per bushel)

Corn, 99.99% (per bushel, \$ per bushel)

Soybeans, 99.99% (per bushel, \$ per bushel)

Rice, 99.99% (per cwt, \$ per cwt)

Wheat, 99.99% (per bushel, \$ per bushel)

Corn, 99.99% (per bushel, \$ per bushel)

Soybeans, 99.99% (per bushel, \$ per bushel)

Rice, 99.99% (per cwt, \$ per cwt)

Wheat, 99.99% (per bushel, \$ per bushel)

Corn, 99.99% (per bushel, \$ per bushel)

Soybeans, 99.99% (per bushel, \$ per bushel)

Rice, 99.99% (per cwt, \$ per cwt)

Wheat, 99.99% (per bushel, \$ per bushel)

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SOFTS

All coffee, 99.99% (per lb, \$ per lb)

Cocoa, 99.99% (per lb, \$ per lb)

Rubber, 99.99% (per lb, \$ per lb)

Soybeans, 99.99% (per bushel, \$ per bushel)

Cocoa, 99.99% (per lb, \$ per lb)

Rubber, 99.99% (per lb, \$ per lb)

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Cocoa, 99.99% (per lb, \$ per lb)

Rubber, 99.99% (per lb, \$ per lb)

Soy

صكنا من الامل

OFFSHORE AND OVERSEAS

BERMUDA (FSA RECOGNISED)

Fund Name	Assets	Units	Price
Parlite producer expands			
...

GUERNSEY (REGULATED)

Fund Name	Assets	Units	Price
...

GUERNSEY (FSA RECOGNISED)

Fund Name	Assets	Units	Price
...

IRELAND (FSA RECOGNISED)

Fund Name	Assets	Units	Price
...

Fund Name	Assets	Units	Price
...

Fund Name	Assets	Units	Price
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Fund Name	Assets	Units	Price
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Fund Name	Assets	Units	Price
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Fund Name	Assets	Units	Price
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Fund Name	Assets	Units	Price
...

Fund Name	Assets	Units	Price
...

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GIVE YOUR WORKFORCE A CHANCE TO FIGHT BACK.

It is a fact that one third of the people in the UK will get cancer at some point in their lives. Cancer touches the lives of every one - employer and employees alike. Join the Macmillan Nurses in the fight. Telephone 0181 223 7706, or cut out this ad and return it to: Corporate Development Manager, Macmillan Cancer Relief, 3 Angel Walk, London W6 9HD.

Name: _____
Company Name: _____
Telephone: _____
Registered charity number 203027

Macmillan cancer relief

AUSTRALIA
BHP sells Hunter Valley coal mine to Glencore

BHP has sold its 100% stake in the Hunter Valley coal mine to Glencore. The mine is one of the largest in Australia and produces high-quality coal for export.

GREECE
Parlite producer expands

Parlite, a leading producer of light bulbs, has announced plans to expand its production facilities. The company aims to increase its output to meet growing demand in the European market.

INDIA
India, Bangladesh crops

India and Bangladesh have agreed to increase their agricultural trade. The two countries have signed a joint declaration to promote the exchange of crops and other agricultural products.



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● FT Clothing Unit Trust Prices not available over the telephone. Call the FT Clothing Help Desk on (468 771) 873 4378 for more details.

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● FT Ceylon Unit Trust Prices are available over the telephone. Call the FT Ceylon Help Desk on 1-44 772 823 4378 for more details.

● FT Ceylon Unit Trust Prices are available over the telephone. Call the FT Ceylon Help Desk on 1-44 772 823 4378 for more details.

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CONSTRUCTION - Continued

ENGINEERING - Continued

EXTRACTIVE INDUSTRIES - Continued

RESISTANCE - Continued

INVESTMENT TRUSTS - Continued

BANKS, RETAIL

DISTRIBUTORS

1. *Chlorophyll a* (Chl *a*)

FOOD PRODUCERS

INVESTMENT TRUSTS

Old Iron 10000
Northern Iron 10000
Old Medical 5000

BREWERIES, PUBS & REST

SA Inc. _____
 Steel Hardware _____

752pc Dr Ad Pl
Distances:

2.1 GAS DISTRIBUTION

Warrant
Advance UK Trust
Address

142	Schroder Asia Pacific
115	Warrants

BUILDING MATS. & MERCHANTS

PRE **DIVERSIFIED INDUSTRIALS**

DE ENGINEERING SERVICES

Reported American-born	1940
NY	1945
Full citizenship	1950

China Inc. 1997
Wendell
City New York 1997

Temple Bar
Templeton Em

CHEMICALS

Bondhorst _____
 Bullock A. _____

225 **Boys' Home Park** _____
 9 **Land** _____
 21 **Lucas Ferry** _____

HOUSEHOLD GOODS & TEXTILES

7pc Cr Ltr '99.
Flashing Arrow

-	-	EXPORT VALUE
A.D.	19.5	ZERO DOW PT.
-	-	EXPORT DUAL

CONSTRUCTION

[illegible]

9	73.0	East Road Pyp R
0	17.0	Eastwood Gold R

22.2	Jordan
13.8	Jones Street
	Jordan (1)

4.8	12.5	Warwick
2.9	0	Govett High Sch
		Warwick

104.9	12.3	1 & S Opa...
-	-	Zona P...

Received ..
Revised ..
C.A. A

48 12.7
38 8.0 ENGINEER

Montague AS -
 Montague AS -
 Montague AS -

11. *Chlorophyll a* (mg/g)

10.7	9.5	INVESTCO Corp
11.2	10.7	INVESTCO Corp
5.4	11.3	INVESTCO Corp

1.37.0	FD.2	Annually F
232.8	8.7	Zero five
232.8	FD.2	Annually F

HITACHI



WHAT'S NEXT

IRV TRUSTS SPLIT CAPITAL

هكذا من الاصل

LONDON STOCK EXCHANGE

Footsie makes little progress ahead of key data

MARKET REPORT

By Steve Thompson
UK Stock Market Editor

UK stocks drifted aimlessly for much of yesterday's session before clambering back into positive ground in mid-afternoon after Wall Street came in strongly.

But the early strength in New York, where the Dow Jones Industrial Average put on 50 points, failed to last or to attract many supporters to London stocks.

Dealers said the big institutions remained reluctant to trade in any substantial

size ahead of the week's two important economic news items: the meeting of the Bank of England's monetary committee, which starts this morning, and Friday's US non-farm payroll report for May.

Rather unconvincing performances from Wall Street overnight and from the big Asian markets early yesterday saw London shares slip at the start of trading and remain in negative territory for much of the session.

There was no real support for equities from a weary-looking gilts market which fell away in spite of better-

than-expected consumer credit data for April, showing personal lending at less than £900m, compared with a forecast of £1.1bn.

At the close, the FTSE 100 index was 4.4 up at 5,826.0, after a low of 5,809.9.

The two junior FTSE indices also spent much of the session in negative territory. The FTSE 250 settled 1.3 down at 5,897.6 while the FTSE SmallCap finished just 0.7 up at 3,762.5.

Turnover at 8pm was an unspectacular 888.3m shares. The day was not without excitement. Railtrack delivered another excellent per-

formance, ahead of an expected Commons announcement this afternoon by John Prescott, the deputy prime minister, of the go-ahead for the Channel Tunnel link.

And there were reports that investors were switched between sectors. The strategy team at Goldman Sachs, the investment bank, revised its recommended sector strategy for the UK.

Goldman's team reduced weightings in banks and increased weightings in capital goods, basic industries and consumer areas, citing its view that there was a substantial risk that sterling

would weaken further. "If it were to fall towards the DM2.60 level our currency team is targeting, the producer side of the economy could see a reversal of the negative trends in earnings expectations that have dominated performance for most of the past year."

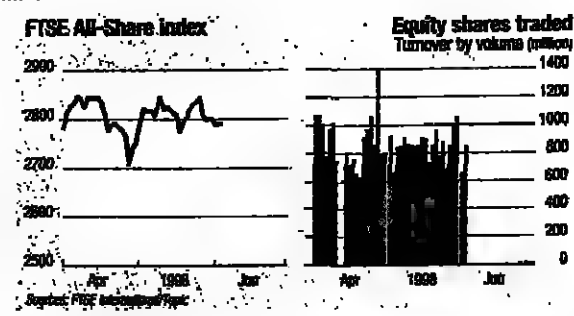
On banks, Goldman said: "We believe that lack of action on bank consolidation in the UK could see the recent underperformance of the sector extended."

Meanwhile, the strategy team at Credit Suisse First Boston said: "While no major markets will emerge

unscathed if the Dow falls sharply, relative valuations should cushion the UK. Gilt valuations are at a 10-year high relative to Treasuries, while UK equities are valued as lowly against the US as during the UK recession of the early 1990s."

CSFB pointed to a shift in market leadership in recent months towards the more cyclical sectors, with a key feature being the retreat from the defensive sectors which dominated in 1997.

"With interest rates now close to a peak, we see little attraction in defensives," the CSFB team said.



Indices and ratios					
FTSE 100	5826.0	+4.4	FT 30	3762.5	+0.7
FTSE 250	5897.6	-1.3	FTSE Non-FT 100	5826.0	+4.4
FTSE 350	5826.0	+4.4	FTSE 100/FT 250	5826.0	+4.4
FTSE All-Share	5826.0	+4.4	FTSE All-Share yield	2.82	
FTSE All-Share yield	2.82				

Best performing sectors
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2 Data was unavailable for this sector
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Worst performing sectors
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Royals in late surge

COMPANIES REPORT

By Peter Jones and Martin Wicks

Royal & Sun Alliance was the strongest performer among the Footsie stocks with a rise of 62 or almost 10 per cent to 700p.

However, one insurance analyst said the rise reflected nothing more than a "break trade" carried out seconds before the close of dealing at 700p a share and representing no more than 2,500 shares.

Financial sector specialists said the commercial or real price of Royal & Sun Alliance at the time of the stock trade was just 638p. The apparent distortion to the price is only the latest in a long series of so-called rogue trades, the most recent of which included late significant moves in BNC Group and British Energy.

RMC Group, the new entrant to the FTSE 100, was the worst performer as the stock closed at 512.5p, a fall of 17p following its 235p rise in the last few minutes of trading on Monday.

British Energy, driven up sharply late on Monday by a trade well outside the commercial price, finished down 21p at 578p.

The stock market said yesterday that the late trades

were all legitimate and reflected decisions by fund managers to pick up stock outside the commercial price.

It said, for example, that the jump in Royal & Sun Alliance was caused by a basket trade in which the buyer had gone for immediate above price.

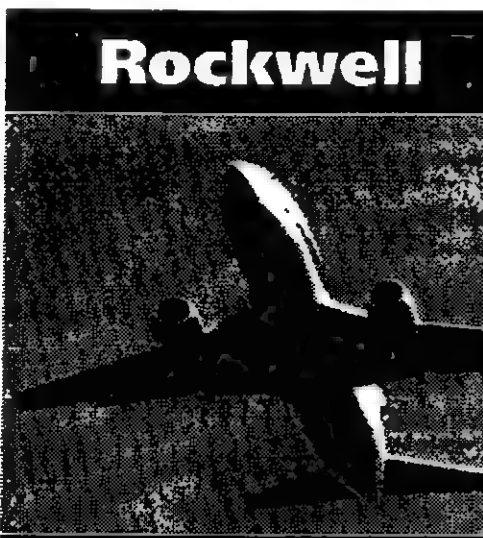
Meanwhile, Independent Insurance rose to the top of the FTSE 250 index with a rise of 33p to 374p as buyers responded to a certain amount of takeover talk.

Lloyds insurance vehicles were strong on restructuring hopes. Limit gained 17p to 238p.

FTSE 100 INDEX

PVE ratio int	23.76	23.81	23.68	23.97	24.27	18.03	28.41	19.80		
PVE ratio int	23.59	23.80	23.68	23.78	24.08	17.84	28.18	19.71		
FT 30 since correlation: high 3820.3 1145.0; low 48.4 2050.0; Data Date: 1/1/25										
FT 30 hourly changes										
Open	9	10	11	12	13	14	16	High	Low	
3821.8	3780.9	3795.1	3784.1	3794.2	3800.2	3805.3	3796.3	3796.4	3821.8	3779.2

Highs & Lows shown on a 52 week basis



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Emerging markets

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SOCIETY OF ACTIVITIES AND THE INSTITUTE OF ACTIVITIES. NORTON, SEARSON LTD. WAS A CO-FOUNDER OF THE INDICES.

[illegible]

NEW YORK STOCK EXCHANGE PRICES

4 pm close June 2

NYSE LISTED STOCKS		1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915	1914	1913	1912	1911	1910	1909	1908	1907	1906	1905	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893	1892	1891	1890	1889	1888	1887	1886	1885	1884	1883	1882	1881	1880	1879	1878	1877	1876	1875	1874	1873	1872	1871	1870	1869	1868	1867	1866	1865	1864	1863	1862	1861	1860	1859	1858	1857	1856	1855	1854	1853	1852	1851	1850	1849	1848	1847	1846	1845	1844	1843	1842	1841	1840	1839	1838	1837	1836	1835	1834	1833	1832	1831	1830	1829	1828	1827	1826	1825	1824	1823	1822	1821	1820	1819	1818	1817	1816	1815	1814	1813	1812	1811	1810	1809	1808	1807	1806	1805	1804	1803	1802	1801	1800	1799	1798	1797	1796	1795	1794	1793	1792	1791	1790	1789	1788	1787	1786	1785	1784	1783	1782	1781	1780	1779	1778	1777	1776	1775	1774	1773	1772	1771	1770	1769	1768	1767	1766	1765	1764	1763	1762	1761	1760	1759	1758	1757	1756	1755	1754	1753	1752	1751	1750	1749	1748	1747	1746	1745	1744	1743	1742	1741	1740	1739	1738	1737	1736	1735	1734	1733	1732	1731	1730	1729	1728	1727	1726	1725	1724	1723	1722	1721	1720	1719	1718	1717	1716	1715	1714	1713	1712	1711	1710	1709	1708	1707	1706	1705	1704	1703	1702	1701	1700	1699	1698	1697	1696	1695	1694	1693	1692	1691	1690	1689	1688	1687	1686	1685	1684	1683	1682	1681	1680	1679	1678	1677	1676	1675	1674	1673	1672	1671	1670	1669	1668	1667	1666	1665	1664	1663	1662	1661	1660	1659	1658	1657	1656	1655	1654	1653	1652	1651	1650	1649	1648	1647	1646	1645	1644	1643	1642	1641	1640	1639	1638	1637	1636	1635	1634	1633	1632	1631	1630	1629	1628	1627	1626	1625	1624	1623	1622	1621	1620	1619	1618	1617	1616	1615	1614	1613	1612	1611	1610	1609	1608	1607	1606	1605	1604	1603	1602	1601	1600	1599	1598	1597	1596	1595	1594	1593	1592	1591	1590	1589	1588	1587	1586	1585	1584	1583	1582	1581	1580	1579	1578	1577	1576	1575	1574	1573	1572	1571	1570	1569	1568	1567	1566	1565	1564	1563	1562	1561	1560	1559	1558	1557	1556	1555	1554	1553	1552	1551	1550	1549	1548	1547	1546	1545	1544	1543	1542	1541	1540	1539	1538	1537	1536	1535	1534	1533	1532	1531	1530	1529	1528	1527	1526	1525	1524	1523	1522	1521	1520	1519	1518	1517	1516	1515	1514	1513	1512	1511	1510	1509	1508	1507	1506	1505	1504	1503	1502	1501	1500	1499	1498	1497	1496	1495	1494	1493	1492	1491	1490	1489	1488	1487	1486	1485	1484	1483	1482	1481	1480	1479	1478	1477	1476	1475	1474	1473	1472	1471	1470	1469	1468	1467	1466	1465	1464	1463	1462	1461	1460	1459	1458	1457	1456	1455	1454	1453	1452	1451	1450	1449	1448	1447	1446	1445	1444	1443	1442	1441	1440	1439	1438	1437	1436	1435	1434	1433	1432	1431	1430	1429	1428	1427	1426	1425	1424	1423	1422	1421	1420	1419	1418	1417	1416	1415	1414	1413	1412	1411	1410	1409	1408	1407	1406	1405	1404	1403	1402	1401	1400	1399	1398	1397	1396	1395	1394	1393	1392	1391	1390	1389	1388	1387	1386	1385	1384	1383	1382	1381	1380	1379	1378	1377	1376	1375	1374	1373	1372	1371	1370	1369	1368	1367	1366	1365	1364	1363	1362	1361	1360	1359	1358	1357	1356	1355	1354	1353	1352	1351	1350	1349	1348	1347	1346	1345	1344	1343	1342	1341	1340	1339	1338	1337	1336	1335	1334	1333	1332	1331	1330	1329	1328	1327	1326	1325	1324	1323	1322	1321	1320	1319	1318	1317	1316	1315	1314	1313	1312	1311	1310	1309	1308	1307	1306	1305	1304	1303	1302	1301	1300	1299	1298	1297	1296	1295	1294	1293	1292	1291	1290	1289	1288	1287	1286	1285	1284	1283	1282	1281	1280	1279	1278	1277	1276	1275	1274	1273	1272	1271	1270	1269	1268	1267	1266	1265	1264	1263	1262	1261	1260	1259	1258	1257	1256	1255	1254	1253	1252	1251	1250	1249	1248	1247	1246	1245	1244	1243	1242	1241	1240	1239	1238	1237	1236	1235	1234	1233	1232	1231	1230	1229	1228	1227	1226	1225	1224	1223	1222	1221	1220	1219	1218	1217	1216	1215	1214	1213	1212	1211	1210	1209	1208	1207	1206	1205	1204	1203	1202	1201	1200	1199	1198	1197	1196	1195	1194	1193	1192	1191	1190	1189	1188	1187	1186	1185	1184	1183	1182	1181	1180	1179	1178	1177	1176	1175	1174	1173	1172	1171	1170	1169	1168	1167	1166	1165	1164	1163	1162	1161	1160	1159	1158	1157	1156	1155	1154	1153	1152	1151	1150	1149	1148	1147	1146	1145	1144	1143	1142	1141	1140	1139	1138	1137	1136	1135	1134	1133	1132	1131	1130	1129	1128	1127	1126	1125	1124	1123	1122	1121	1120	1119	1118	1117	1116	1115	1114	1113	1112	1111	1110	1109	1108	1107	1106	1105	1104	1103	1102	1101	1100	1099	1098	1097	1096	1095	1094	1093	1092	1091	1090	1089	1088	1087	1086	1085	1084	1083	1082	1081	1080	1079	1078	1077	1076	1075	1074	1073	1072	1071	1070	1069	1068	1067	1066	1065	1064	1063	1062	1061	1060	1059	1058	1057	1056	1055	1054	1053	1052	1051	1050	1049	1048	1047	1046	1045	1044	1043	1042	1041	1040	1039	1038	1037	1036	1035	1034	1033	1032	1031	1030	1029	1028	1027	1026	1025	1024	1023	1022	1021	1020	1019	1018	1017	1016	1015	1014	1013	1012	1011	1010	1009	1008	1007	1006	1005	1004	1003	1002	1001	10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Month	Population (millions)
May 1990	37.5
Jun 1990	36.5
Jul 1990	37.0
Aug 1990	36.0
Sep 1990	36.5
Jun 1991	36.0

Year	Earnings
1997	1250
1998	1260
1999	1250

THE NASDAQ STOCK MARKET

[illegible]

STOCK MARKETS

Russia and Pakistan continue to see-saw

WORLD OVERVIEW

Events in emerging markets continued to capture most of the attention of international investors as the recent volatility continued, writes Philip Cogan.

The Pakistani market fell to an all-time low before rebounding, but the day's second session was cancelled by the Karachi stock exchange.

Russia rebounded 12.3 per cent after Monday's

double-digit loss as hopes of a support package were revived after comments from US Treasury secretary Robert Rubin.

Such substantial one-day moves reflect fragile investor sentiment in the wake of the recent economic and political crises in emerging markets. Bad news has been pouring out from Asia on almost a daily basis.

But one analyst thinks the problems of the world's second-largest economy may be

at the root of the recent declines.

"A wave of risk aversion is sweeping global equity markets and its source is Japan," says Joe Rooney, global strategist at Lehman Brothers. "The yen rather than the Japanese equity market is the variable that best reflects the market's view of Japanese fundamentals; attempts to support prices have met with relative success in the equity market, but have proved

costly failures in the currency market."

Mr Rooney adds: "Should the yen's move against the US dollar be held at the Y145 level, the current wave of risk aversion should be confined to the shores of Asia and the world of emerging markets. European and US equity markets will correct, but the downside will be limited to 5 per cent."

But he warns that, if the yen falls to Y150, that could trigger the devaluation of

the Chinese renminbi and Hong Kong dollar, prompting Western banks to write off part of their \$507bn loans to emerging markets as bad debts.

The emerging markets team at ING Barings remains pessimistic about Asia, saying the region was facing its deepest recession for over a decade. "Forecasts are still being downgraded and we remain in the midst of a debt crisis. We expect a protracted work-out period."

European markets returned from their Whit Monday holiday in fairly upbeat mood and recovered some of last week's losses. Both Paris and Milan gained more than 1 per cent, while the Brussels bourse managed to close at an all-time high.

The continent's bond markets gave some ground after the recent "flight-to-safety" buying which drove yields down to their lowest levels for a generation.

EMERGING MARKET FOCUS

Singapore has to cut its cloth

Singapore's latest results season has not been the best sales pitch for its stock market. Even the biggest companies are under pressure from the regional financial crisis.

Because Singapore is such a small market, the economy has long depended on international exposure for growth. But with many neighbours in too much trouble to contribute, Singapore's economy is slowing and its people are drastically cutting back spending.

In spite of the city state's strong fundamentals, the crisis is starting to show up in bottom lines. Down 2.3 per cent yesterday to 1,207.12, the benchmark Straits Times index is now almost 30 per cent below its 1998 peak of the third week of March.

Singapore Airlines reported only a slight 0.3 per cent increase in group profit to \$81.04bn for the year ended March 1998. Even that, the company said, did not fully demonstrate how much it was being affected as the results included the period before the regional crisis took hold.

"We expect the very difficult operating environment to continue well into 1998 and possibly beyond," says Cheong Cheong Kong, deputy chairman and chief executive officer.

Singapore Telecom appeared to be doing better, but warned its results would not continue to hold up quite so well as the regional crisis deepened.

The national telephone company reported a 12 per cent rise in net profit to \$81.89bn for 1997-98. But it said growth in international telephone revenues would fall because of low traffic growth and planned rate cuts.

Analysts warn, however, against buying and selling on company results alone. It is important to study how corporations are responding to the crisis and, so far, they say, Singapore has made the right moves.

Much the same is being said about Singapore's other leading companies, including its banks, which moved quickly to set aside large provisions, in particular for possible bad loans in Indonesia.

"There is an impact but keep it in context," says Deragh Mahar, economist at ING Barings. "Singapore's fundamentals compensate for its proximity."

Sheila McNulty

Dow slips as blue chips turn lower

AMERICAS

US shares moved lower with mild selling in blue chips offsetting gains in the broader market, writes John Labate in New York.

Despite gains in some of the broader averages, there continued to be some negative trends weighing on the market. Declining and advancing issues were even, suggesting the market continued to struggle to find a direction.

By early afternoon, the Dow Jones Industrial Average was down 5.48 to 8,916.89 while the Standard & Poor's 500 had gained 3.11 to 1,094.08.

Investors returned to technology shares, taking advantage of lower prices after Monday's sharp sell-off. But gains were modest and the Pacific Stock Exchange's technology index added less than a point to 323.69. The Nasdaq composite gained 5.18 to 1,761.98.

The telecom sector moved higher on news that Sprint had restructured its telecom system. The stock rose \$1 1/2 to \$52 1/2 while MCI fell \$1/4 to \$52 1/4.

Recent technology also rallied, climbing \$2 to \$7 1/4 after the company revealed new contracts in Asia.

Automobile stocks also improved with General Motors up \$1 1/2 to \$7 1/2 after the company said its Colombian unit had achieved a 10 per cent rise in sales.

Ford Motor continued to gain, rising almost 5 per cent or \$2 1/2 to \$55 1/2 after the company said it will improve productivity. Chrysler shares were unchanged at \$55 1/2.

Major technology shares rebounded slightly with

Microsoft, the software leader, up \$1 1/2 to \$84 1/2. Intel rose 1.1 per cent or \$4 to \$68 1/2 following a near 6 per cent fall on Monday on news that it was delaying the release of its next generation semiconductor chip.

But there were some sharp falls among computer-related shares. IBM was down \$1 1/2 to \$115 1/2 while America Online, the internet company, plunged \$3 1/2 to \$75 1/2 in spite of news of a new product launch.

Small-company shares also pulled back, sending the Russell 2000 index down 1.59 to 449.02.

TORONTO made modest headway in early trading, supported by the heavy-weight gold sector which took its cue from a better day for the bullion prices.

Bullion broke back above \$290 and the gold sector recouped part of Monday's heavy 4.8 per cent losses. The sub-index, which accounts for 5 per cent of the overall index, gained 2.5 per cent. Barrick gained 50 cents to C\$27.45 and Teck Corp rose 75 cents to C\$18.

It was a strong enough performance to provide some overall lift to the market and at noon the 300 composite index was up 8.45 at 7,521.

Other sectors were also higher. Banks, which rose 0.3 per cent, traded quietly. Royal Bank of Canada hardened 10 cents to C\$99.05 and Canadian Imperial Bank of Nova Scotia gained 20 cents to C\$48.65 and C\$38.55 respectively.

Metals and minerals were bought, rising 0.8 per cent, with Alcan Aluminium gaining 45 cents to C\$41.40. Among industrials, Northern Telecom shed 50 cents to C\$83.50.

Merger lifts forestry stocks

EUROPE

Europe's forestry stocks rallied on news of the merger between forestry groups Stora of Sweden and Finland's Enso.

Hopes of further consolidation within the industry supported the sector across the continent, with the smaller paper groups in France among the leading gainers.

In Helsinki, Enso closed up Fmk1.50 or 13 per cent at Fmk4.80. The shares were suspended briefly but jumped after trading resumed in the afternoon. The Hex index rose 27.56 to 4,763.07 with the forestry index up 7 per cent.

Other forestry shares also rallied. UPM-Kymmene, the leading forestry company, rose Fmk4 or 2.6 per cent to Fmk159 and Metsa-Serla added Fmk3.50 or 6 per cent to Fmk60.50.

Stora was suspended in STOCKHOLM, where shares were otherwise weak. Official said trading in Stora would restart today.

The overall market was little changed with the OMX index down 0.8 per cent to 781.17. Forestry shares were higher with MoDo up SKr15.50 to SKr282.50 and SCA adding SKr3 to SKr218.

Drug shares, initially pushed higher on the announced links between American Home Products and Monsanto, closed lower on profit-taking. Pharmacia & Upjohn fell SKr4.50 to SKr388 and Astra lost SKr1 to SKr186.5.

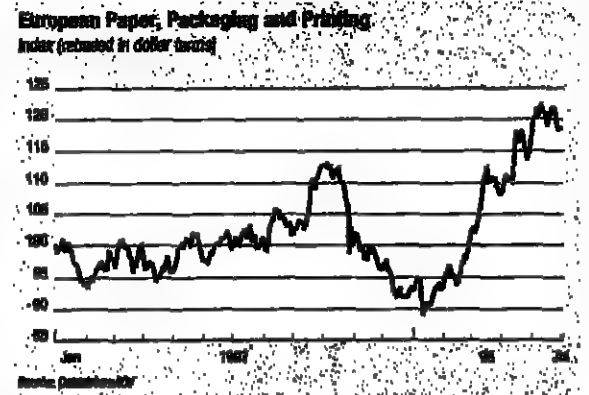
PARIS produced the fastest turn of speed among leading bourses, adding 45.82 at 4,088.99 on the CAC 40 index in modest Ffr3.5bn turnover.

Positive broker comment got behind a number of stocks, notably France Telecom, which rose Ffr19.80 or 5.5 per cent to Ffr344.90. Lafarge jumped Ffr31.00 or 5.1 per cent to Ffr783 following a move from "accumulate" to "buy" at Merrill Lynch.

A 44 per cent rise in French new car sales in May sent Renault up Ffr4 to Ffr317 and Peugeot Ffr6 higher to Ffr11.175.

Havas hardened Ffr2 to Ffr473.20 on news that it may form a trade publication.

Financials bounced 187.4



European Paper, Packaging and Printing Index (excluding dollar trading)

Source: DataStream

tion joint venture with Bertelsmann.

L'Oréal shared in the latest US mega-merger in the sector. L'Oréal added Ffr124 to Ffr3,055 while its drug unit Synthelabo rose Ffr37 to Ffr1,030. Sanofi, part of the Elf-Aquitaine group, gained Ffr7 to Ffr708.

Scandinavian consolidation drove France's liquid paper sector higher. Cassiope surged Ffr66 to Ffr647, La Rochette Ffr2.30 to Ffr30.50 and Emin-Leydier Ffr25 to Ffr490.

FRANKFURT gained modest ground with the Xetra Dax index improving 27.56 to 5,583.83 in electronic trading. Viag jumped DM33 or 3.5 per cent to DM1,081 on rumours of management changes.

Hoechst came off DM3.64 to DM38 as last week's rumours of a link with Swiss drug giant Roche showed signs of unwinding. Metro jumped DM4.25 to DM116.76 following an upgrade for selected retail shares by Deutsche Morgan Grenfell.

Porsche rose DM250 to DM5,150 on talk of sports car co-operation with Volkswagen. VW added DM14 to DM1,455 ahead of tomorrow's annual meeting.

News that its public offer had been three times subscribed sent the steel group Salzgitter up DM1 to DM24.

ZURICH ended little changed with the SMI index up 1.4 at 7,557.5. Novartis came off Sfr9 to Sfr2,499 following a downgrade from "buy" to "accumulate" by Merrill Lynch.

Among banks, UBS came off Sfr19 to Sfr2,471 as investors continued to fret about press stories - denied

by the bank - of losses at the group's Singapore unit. Nestlé was a firm feature, advancing Sfr111 to Sfr3,224.

AMSTERDAM edged higher after moving within a narrow range and the AEX index added 1.95 at 1,200.45.

ABN AMRO, which is bidding for Generale Bank of Belgium, recouped some of last week's losses, adding 30 cents to Fl49. Rival bidder Fortis, the Beigo-Dutch financial group, rose Fl1.80 to Fl12.40.

Worries over Asia and Monday's slump in US high-technology shares hit electronics stocks. ASM Lithography fell Fl6 or 8.7 per cent to Fl74.40 and Benelux, the software group, shed Fl1.90 to Fl90.20.

MILAN closed higher on late buying of banking and insurance stocks by institu-

tions. The Mibtel index rose 278 or 1.2 per cent to 23,832.

The banking index gained 1.5 per cent, with Banca di Roma up L47 to L3,604 and Credito Italiano adding L352 to L5,527.

Mediaset rose L441 or 4 per cent to L11,484 on speculation that the broadcasting and advertisement group would be awarded a cellular phone licence.

MADRID closed marginally higher amid cautious trading and the general index added 5.38 or 0.6 per cent to 880.84.

Endesa, the utility, fell Pt10 or 0.3 per cent to Pt3,620 after the government set the ceiling price for the retail tranche of its share offer at Pt3,776.

Telefonica rose Pt110 to Pt6,880. Banks were higher with BCH adding Pt10 to Pt4,975 and Santander Pt150 to Pt7,750.

MOSCOW rebounded on what was described as tentative foreign buying. Down 10.9 per cent on Monday to its lowest level since November 1996, the RTS index rose 12.3 per cent to 182.75.

Volumes were minimal, but dealers said the buyers were discouraged by signs that the G7 nations were considering emergency financial support.

Written and edited by Jeffrey Brown, Emilio Terrazano, Peter Hall and Paul Gregan

First three months 1998

Very strong profit increase in first three months 1998 (+86.2%), especially due to special factors

(in millions of dollars, except for amounts per share)	First three months 1997 published	First three months 1997 adjusted*	First three months 1998	% change
Revenue before taxation: ***	318	389	587	50.9**
Insurance operations	303	326	620	89.8**
- banking operations	435	508	947	86.2**
Net profit per ordinary share	0.38		1.03	77.3
	31 December 1997 published	31 December 1997 adjusted*	31 March 1998	
Total assets****	297,914	297,911	440,237	47.8**
Shareholders' equity****	22,145	23,392	38,386	29.1**

* Adjusted for the changes in the accounting principles

** Compared with the adjusted figures

*** Results: U.S.\$1.00 = NLG 2.0493 (average exchange rate) U.S.\$1.00 = NLG 2.0823 (exchange rate on 31 March 1998)

**** Assets and shareholders' equity:

Net profit showed a very strong increase, also on the basis of the new accounting principles. This increase was especially due to the consolidation of acquisitions. The profits resulting from the sale of the interests in Libertel (mobile telephone network) and Kredietbank Belgium have been partly used for an extra addition to the Value adjustments to receivables of the banking operations in connection with Asia.

Excluding these special factors, the net profit from the insurance operations rose by 9.3% and from the banking operations by 10.3%. In the result from the insurance operations a claims burden (after taxation) of approximately U.S.\$32 million was included as a result of ice storms in North America.

Good net profit contribution from BBL (U.S.\$110 million), Equitable of Iowa (U.S.\$23 million) and Furman Selz (U.S.\$10 million). Net profit made on the partial sale of the banking and insurance interests in Libertel and of the banking interest in Kredietbank Belgium amounted to U.S.\$217 million and U.S.\$97 million respectively.

The item Value adjustments to receivables of the banking operations amounted to U.S.\$144 million. Excluding the influence of BBL the increase was 10%. The banking profits resulting from the sale of the interests in Libertel and Kredietbank Belgium have largely been used for an extra addition, by way of precaution, in connection with the developments in Asia especially in Indonesia, to the Value adjustments to receivables by U.S.\$195 million.

Provisions were made for the euro and the millennium (U.S.\$24 million), reorganisations (U.S.\$20 million) and the risk of low interest rates (U.S.\$12 million).

Assets under management increased by 37% to U.S.\$220 billion.

ING GROUP

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The report for the first three months 1998 can be obtained at the following address:

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Telmex leads rebound

MEXICO CITY gained ground as the rebound in Russia and European bourses supported investor confidence.

The IPC index rose 40.55 or 0.8 per cent to 4,851.07 led by Telmex, which gained 30 centavos to 21 pesos.

Tomsa, the steelmaker, was up 50 centavos to 131.50 pesos after Morgan Stanley Dean Witter issued a report recommending Latin American steelmakers.

Strength in Europe and Wall Street supported SAO PAULO. The Bovespa index,

which lost 16 per cent in May on worries over the government's popularity and progress on state reforms, rose 238 or 2.5 per cent to 9,843.

Local institutional investors including pension funds, were seen bargain-hunting. Market heavy-weight Telebras gained R\$4 to R\$123.30, while preferred shares of Petrobras rose R\$12 to R\$237.

BUENOS AIRES trailed other bourses in the region, with the Merval index up 8.53 or 1.4 per cent to 997.95.

Stronger rand sparks rally

SOUTH AFRICA

Shares in Johannesburg rallied in late trading after a steep rise for official interest rates put fresh heart into the rand. The all-share index closed up 40 at 7,527.9.

Financials bounced 187.4

to 13,250.7 with Nedcor rising R3.20 or 2.3 per cent to 140.20.

Industrials gained 35.5 to 9,048.3 and golds also had a better day. The bullion price climbed back above \$290 and the golds index improved 4.6 to 104.1.

gained Y19,000 to Y849,000.

The yen's weakness contributed to rises by exporters such as Sony, which moved up Y80 to Y11,430.

Sony's shares were also supported by enthusiasm for the company's acquisition of a 6.7 per cent share in JustSystem, the maker of Japan's most popular word-processing software.

KARACHI bounced off early lows to close with the 100 index up 21.02 or 2.3 per cent at 932.46. On Monday, the first day of trading in the wake of Pakistan's nuclear tests, the market fell 12.3 per cent.

The second of yesterday's two sessions was cancelled after the market fell sharply in early trading and the stock exchange decided to reduce the settlement period to twice weekly.

The Karachi stock exchange yesterday sought help from Pakistan's public sector institutions to help prevent a further slide in share prices, writes Farhan Bokhari in Islamabad.

The appeal was directed towards government-owned banks and an insurance company that, it says, have

Nikkei recaptures 15,500 level

ASIA PACIFIC

Bargain-hunting and technical short-covering lifted TOKYO, supporting a solid rise for shares after Monday's sharp fall, writes Michio Nakamoto in Tokyo.

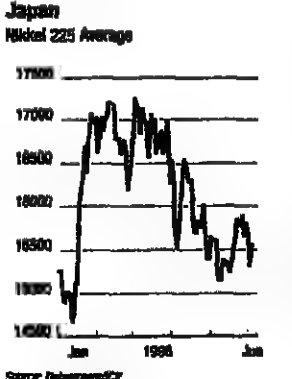
The Nikkei 225 average climbed back above the psychologically important 15,500 mark, adding 233.42 at 15,564.45 after fears of Asian turmoil and the weak yen sent the index tumbling 350 points on Monday.

Investors were back bargain-hunting and covering short positions but volume was thin at 280bn shares compared with 331m on Monday. Stability on Wall Street also contributed to the recovery.

However, continuing fears about the weakness of the Japanese economy and the yen, which fell closer to Y140 to the dollar during the day, kept a lid on buying enthusiasm.

During the day the Nikkei 225 moved within a narrow range from a low of 15,353.20 to a high at the close of 15,564.45.

Across-the-board buying took issues that gained to



Japan Nikkei 225 Average

Source: DataStream

779 against 340 issues that

fell. The Topix index of all first-session shares rose 16.27 to 1,212.97.

The alliance between Travelers and Nikko Securities continued to attract attention. Nikko Securities topped the volume list and increased Y36 to Y518.

Other financial issues were firm, with Sumitomo Bank up Y27 to Y1,309 and Sanwa up Y24 to Y1,214.

Public utility shares were also firm. Tokyo Electric Power, the largest electricity company, rose Y5 to Y2,665.

Railway company JR East

Handwritten signature: 日本経済新聞

صباح الخير

FINANCIAL TIMES REVIEW



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In-store innovations herald a retail revolution
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Information Technology

Wednesday June 3 1998

Paul Taylor finds some surprises in new research on the changing role of IT directors and chief information officers in the US, UK, Germany and France

IT directors make a bid for the fast lane

As information technology moves into the business mainstream and becomes increasingly critical to the performance and competitive edge of companies, the role of the IT director or chief information officer is changing dramatically.

Research undertaken by International Data Corporation on behalf of Korn Ferry International and the Financial Times among IT directors in the US, UK, Germany and France confirms that fundamental changes are under way in the role of IT directors and CIOs in all four countries.

The study, based on interviews with 340 CIOs - 150 in the US, 70 in the UK, 70 in Germany and 50 in France, also highlights the differences between IT directors in their backgrounds, career prospects, perceptions of future technology and the amount of time they spend talking to other key business executives.

But it also contains a number of surprises: for example, 15 per cent of US CIOs and 10 per cent of those in the UK admit to "never interacting" with their chief executive.

Similarly, expertise in Internet technologies emerges as top of the list of skills CIOs believe will be most important to them in the US and ranks a close second to network computing in Germany and France, but in the UK, expertise in Microsoft's Windows

NT tops the list.

The survey also provides an interesting insight into who IT directors are, where they came from, what motivates them and how they measure success.

Strikingly, more than a fifth of all US CIOs consider that existing IT investments have failed to generate a genuinely good return on investment to their organisation and a further quarter were only mildly convinced that it had.

Predictably, cost-reduction remains the biggest selling point for new IT investments. There is, however, evidence of growing disenchantment with IT outsourcing, particularly in the US, the most mature outsourcing market, where 87 per cent of respondents said outsourcing had failed to generate the cost savings expected compared with 47 per cent holding this view in the UK. Similarly, 66 per cent of US CIOs believe the trend towards IT outsourcing is past its peak.

However, the survey also shows that IT professionals recognise that it is crucially important to align the IT infrastructure to business processes and to use IT as a strategic tool to improve competitiveness. Reflecting this, business skills are generally viewed as more important attributes for a successful IT director than an in-depth understanding of IT itself.

Among the main findings:

□ American CIOs' earning capacity is considerably greater than their counterparts in Europe.

IT directors in Europe mostly command salaries in the \$51,000 to \$75,000 bracket, but the salaries of US CIOs extend into the higher echelons with 18 per cent of respondents earning more than \$200,000 not including bonuses.

IDC suggests the much greater earning power of US CIOs reflects the fact that American IT directors are generally in charge of IT infrastructures "with more responsibilities and greater global reach."

For example, more than half the US respondents said they had jurisdiction over a global IT infrastructure while 80 per cent of German IT directors reported that they had responsibility for the domestic market only.

□ Those in charge of corporate IT infrastructures show a surprising lack of geographic mobility - 85 per cent are country nationals although between 80 per cent and 70 per cent in each country said they would be willing to work abroad.

When they were asked how long they expect to remain in their current jobs, big country differences emerged. German CIOs apparently show most loyalty to their employers with 56 per cent expecting to be in the same job in five years' time.

In contrast, US CIOs show the greatest job mobility with 39 per cent expecting to leave their current job within three years and 66 per cent not expecting to remain in post after five years. One factor affecting these figures could be the relatively high number of mergers and

acquisitions in the US markets, although this might be expected to be offset by the more common incidence of share options and other incentive packages in America.

Indeed, in the US, the possibility of a hostile take-over creating an undesirable reporting relationship was ranked as the number one reason to leave - 57 per cent said this was "important" or "very important". The prospect of an improved financial package ranked only number five in the US among reasons for changing jobs, but was the second most important attribute in the UK and France after "a more challenging work environment."

Significantly, two thirds of CIOs in the US have a succession strategy in place compared to only a third of their French counterparts and less than a sixth in Germany.

In the US, a much higher proportion of IT directors expect their successors to have a different role compared with

Europe suggesting that, at least in employment terms, North America remains the most dynamic environment for IT professionals.

□ About two-thirds of IT directors have an IT background, except in France where the figure falls to just 46 per cent. In the US and Europe, IT directors without

IT backgrounds are most likely to have come from the finance department - whereas in France their background is most likely to be in engineering (41 per cent) and in Germany in operations.

Less than 10 per cent of UK-based IT directors consider an in-depth knowledge of IT is critically important to their role, compared with 42 per cent of their French counterparts. US CIOs rank an in-depth knowledge of IT as the least important attribute needed to succeed in their jobs. However there is general agreement that CIOs needed to be able to apply IT strategically if they were to succeed. US and German respondents in particular considered this critically important.

Respondents also considered general business experience outside IT as an important attribute for an IT director. More than 50 per cent of German IT directors thought business experience "critically important" while 77 per cent of their counterparts in Britain said it was "somewhat important".

There was also general agreement that an academic grounding in business skills or an MBA was an important asset for an IT director.

IT directors also emerge as determined to be good corporate communicators. An overwhelming majority in all four countries considered an ability to convey key messages to top management as important if they were to succeed. Nevertheless, a surprisingly high number of IT directors reported that they have little or no interaction with other key business executives including the chief executive. The most usual communications channels for IT directors are with the heads of finance and operations.

French IT directors emerge as the most optimistic, generally, and the most bullish about their prospects of becoming chief executive. Nearly half thought this was a realistic prospect within five years - more than double the figure in the US.

When asked what factors held back IT directors from becoming chief executives, one US respondent noted: "CIOs are generally perceived as geeks and not business professionals," and another remarked: "CIOs show a lack of business acumen and



Sponsored by UUNET UK

■ The search is now on to find winning web sites in various categories of business: full details of this year's competition are on page 21. Entries close on July 31, 1998

shrewdness." One IT director in Britain said "sales and operations personnel will almost always be better suited to the job" and a German respondent commented: "CIOs are not considered as having the correct skills in business and finance."

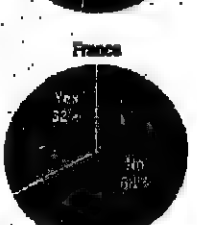
French CIOs are also less likely to leave their companies even if they are under-performing. More than two-thirds said whether their company lost its competitive edge was of "no relevance", "unimportant" or "somewhat unimportant" to their decision on whether to change jobs.

□ The degree of change currently being experienced by CIOs varies considerably across the countries surveyed. French IT directors are experiencing the greatest level of change with 84 per cent describing their jobs as being in a state of transition. That compares with 83 per cent in the UK, the least dynamic of the four markets.

"The level of change may of course be construed either as a negative or a positive phenomenon," notes IDC. Indeed, closer examination of the French data shows that the change CIOs are referring to is "more power and influence" within their organisations - the top unsolicited answer when the French respondents were asked how their role was changing. In contrast to the confidence displayed by their French counterparts, American CIOs showed surprising signs of timidity. For example, when US CIOs were asked how their role

Continued on page 21

Do you have a succession strategy in place for your role?



Source: IDC survey

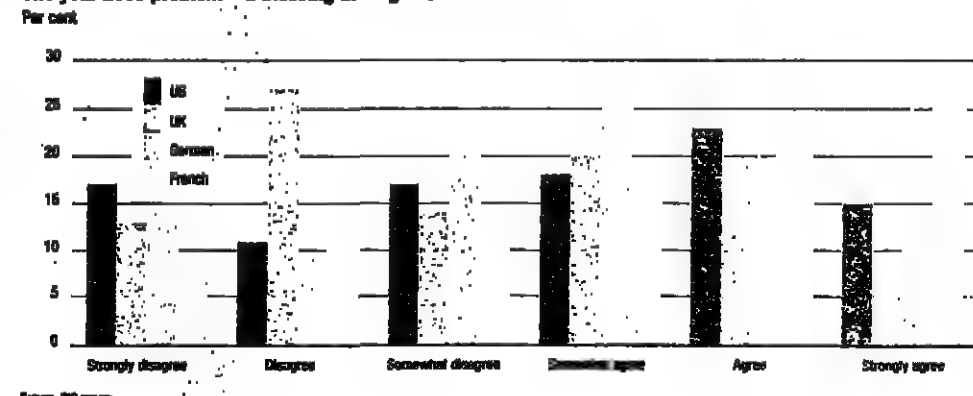
Perceptions of technical skills

Technical skills that CIOs believe will be most important in future - percentages of views

	US	UK	Germany	France
Internet technology	80	80	76	76
IT	68	61	63	58
High-end UNIX	33	19	23	30
Network computing	77	63	80	66
Object orientation	34	17	10	22

■ US CIOs are out of step with other countries in perceived importance of network computing
■ In France, UK CIOs consider skills in the most important data management technology skills
Source: IDC

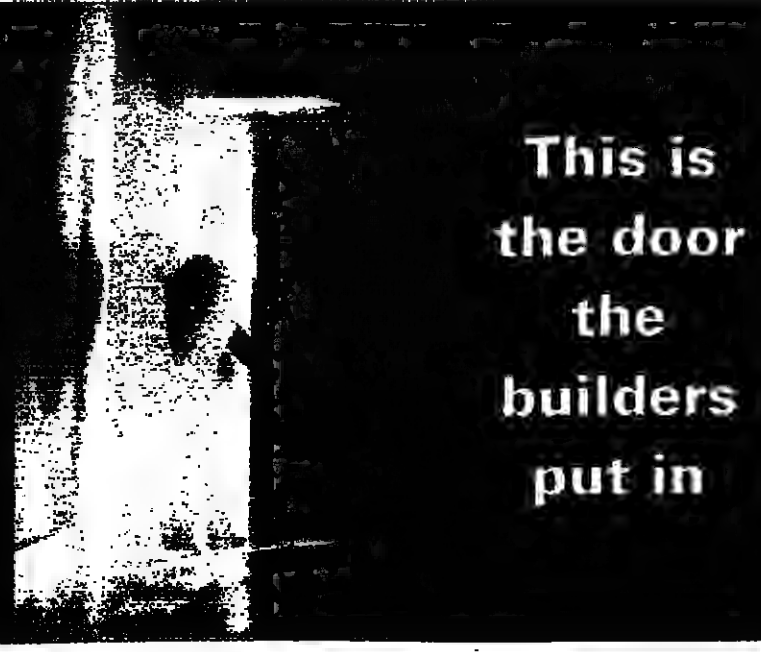
The year 2000 problem - a blessing in disguise?



Source: IDC survey



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IT

NEWS UPDATE

It is anyone's guess where legal action against Microsoft by the US Justice Department may lead, writes George Black

Mother of all IT battles

It was one of those events which, although widely foreseen, nonetheless comes as an enormous shock. The legal action by the US Justice Department and 20 US states against Microsoft, the world's largest software company, has become a subject of intense debate across the world, among the general public as well as within the IT industry.

Even for those who follow the industry closely, it is very hard to assess its possible impact. In the short term, it looks unlikely to stop sales of Microsoft's Windows 98 operating system due to start on June 15, but it could still prevent the product spreading through the consumer sector in the pre-Christmas sales period.

Looking further ahead, it will cast a shadow over the industry for at least the next year - and possibly for many years.

Whether it will in the end affect Microsoft's domination of the industry and strengthen the position of rivals, such as Netscape and Sun Microsystems, is virtually impossible to know. Cynics argue, plausibly enough, that long before the lawyers have finished their work.

Microsoft's position will have been eroded naturally by the evolution of technology.

There are already indications as to how the two sides will approach the legal conflict. The authorities, whatever their ultimate objectives, appear



Bill Gates, Microsoft chairman, fighting on a broader front

to be keen at present to focus the argument narrowly on Microsoft's business practices, such as the contracts it makes with computer manufacturers and Internet service providers, and whether these are fair to competitors, particularly the browser developer Netscape.

The allegations centre on "anti-competitive and exclusionary" practices, said to be aimed at pushing Netscape out of the market and removing a threat to the supremacy of Windows.

The authorities' evidence is said to include internal Microsoft documents and emails that allegedly show it has adopted unfair competitive tactics.

Netscape continues to hold 80 per cent of the browser market, but only by sustaining a second quarter operating loss.

The underlying concern of the Justice Department is that Microsoft could, in a few years, gain a stranglehold over electronic commerce which could become dangerously anti-competitive; but this is not the ground on which it wants to join battle at first. There is no talk yet of splitting up Microsoft, as happened to AT&T, 15 years ago.

Microsoft wants to fight on a much broader front, turning it into an issue of free markets versus regulation. It will argue that in a free market it has delivered what people were demanding all through the 1980s - simple standards that make personal

computers easy to use; and that government should play no part in deciding the future of products.

The early signs, judging from the mass of media comment and correspondence, are that Microsoft is succeeding in generating this sort of discussion; and the relative elasticity of processes in the US courts may be a factor that will favour Microsoft's strategy to broaden the argument.

Judge Thomas Penfield Jackson has consolidated the Justice Department and the states law-suits into one and set September 8th as the date for a hearing. Microsoft had asked for seven months in which to prepare its case.

The court will seek to decide whether Microsoft should separate its browser, Internet Explorer, from Windows 98 or include a copy of Netscape's Navigator in Windows 98. It also has to rule whether Microsoft should revise the terms of its contracts.

Microsoft has been given until July 28 to respond to the charges. The two sides are embarking on an expensive lobbying campaign to win over politicians, business people and the media.

UK SOFTWARE INDUSTRY

Boom could be short-lived

The elevation of Misy as the first software company to join the FTSE 100 marks the coming of age of the UK software industry.

The higher visibility of Misy, a world leader in banking software, should help to gain more exposure for UK and European software companies to institutional investors, especially when a new IT sub-sector is created by the London Stock Exchange next year.

Ironically, this breakthrough comes just at a time when the industry does not need it. After years of being neglected by the investment community, UK software companies are now extraordinarily over-valued, according to the independent UK software analyst Richard Holway.

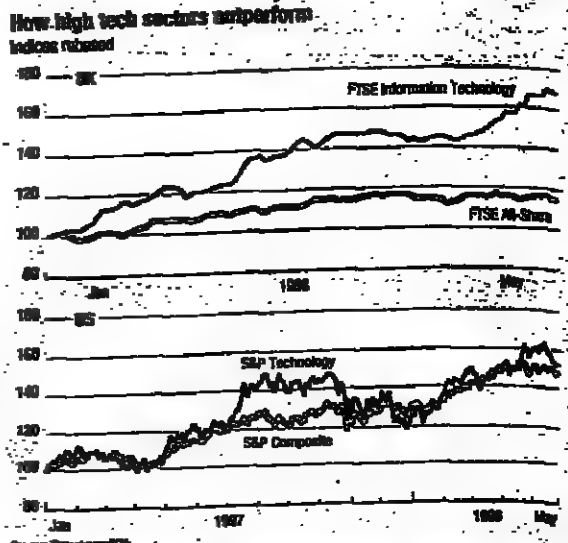
This high rating of software concerns has to do with a growing awareness of the importance of software for competitive edge, reinforced by the huge success of new business applications such as SAP's R/3 and earnings from the year 2000 computer date issue and European Economic and Monetary Union (Emu). But it is doubtful how long the present very high values of software companies can last. Some experts are beginning to talk of a reaction once upgrades forced by the year 2000 problem have been completed.

Dennis Keeling, director of the Business and Accounting Software Developers' Association (Basda), warns of a possible slump in sales of accounting software products as upgrade projects reach completion.

If companies meet the generally agreed target of the end of this year to allow for a year's run-up to the date change, then the fall in sales could start next year. Companies heavily involved in services may be better able to weather the downturn, but the need for expertise in the services businesses could be dragged down by the others. Richard Holway forecasts that average software growth rates will fall from 20-22 per cent today to under 10 per cent by 2001, with a consequent fall in share prices.

The effect of Emu is an uncertain factor. If the UK were to delay entry until, say, 2004, there could be a lengthy UK recession in IT before new work on Emu-related projects caused a revival. But for many IT suppliers, the main beneficial effect of Emu upgrades may already have gone past its peak.

The next issue of the FT-IT Review on July 1, will focus on IT in finance and include a section on accounting software.



THE MONTH IN BRIEF

ICL partners with Microsoft

ICL, the UK arm of Japanese manufacturer Fujitsu, announced a partnership with Microsoft to develop systems for the retail, government, education and computer networking sectors. ICL said the venture could create more than 1,000 jobs in Europe in the next three years. It should boost the company's revenues before the flotation planned for 2000.

Fujitsu's annual profit fell 88 per cent as it was hit by the Asian financial crisis and the fall in chip prices.

US steps up battle against spamming

The US Senate passed an anti-spam (junk email) bill, which would strengthen the law against fraud and require emailers to offer an opt-out clause to their addressees. But critics say that while outlawing some types of spam it would legitimise much of the rest. An amendment would make it easier for people to identify senders of messages. The bill has been passed to the House of Representatives.

Dell beats forecasts

Personal computer manufacturer Dell beat analysts' forecasts with a 54 per cent rise in first quarter income to \$305m on revenue up 52 per cent to \$3.92bn. The company signed agreements with Unisys and Wang for providing support services to clients. It needed to replace its service arrangement with Digital, which was taken over by Dell's rival Compaq. See also a report on Dell's investment in Ireland - page 17 of this review.

Further moves on encryption controls

A bill to relax US controls on exports of encryption products was introduced into the Senate. It would prevent the government from forcing the use of key-recovery and similar encryption systems. Senator Pat Leahy said the US government's position was driving encryption technology, expertise and manufacturing overseas. The bill is supported by the Americans for Computer Privacy coalition.

Computer Associates move ahead

Computer Associates, one of the world's largest software vendors, reported a 28 per cent increase in profit for its fourth quarter to \$422.8m on a 22 per cent rise in revenue to \$1.47bn. This excluded a pre-tax charge of \$93.8m for its failed bid for Computer Sciences.

Sita to float

Sita Telecommunications Holdings, the world's largest data communications network run by the airlines, is set to float on the stock markets of New York and Amsterdam at a potential value of around \$3-3.7bn. The company is changing its name to Equant, under which it has been selling to companies other than airlines. It hopes to raise \$400-\$500m to expand its network capacity.

New IBM mainframes

IBM has announced Generation 5 of its S/390 mainframes, doubling the power of the previous generation to 900 mips (million instructions per second). This was well ahead of analysts' expectations and is said to put it almost on a par with Hitachi Data Systems' top machine. The MOS Skyline at 950 mips has attracted some customers away from IBM.

HP profit warning

Hewlett-Packard was the latest of the big personal computer manufacturers to issue a profit warning, blaming tough competition and falling prices. The news surprised the market, which had thought HP was shielded by its strength in printers, servers and other technologies. It has been affected by sharply falling prices among competitors, caused by an excess of stock. Earlier in the year Compaq suffered a 96 per cent drop in profit and Intel a 38 per cent fall in profits.

New SGS chip plant

SGS Thomson Microelectronics is to invest around \$1bn on new chip-manufacturing plants near Grenoble, France, and near Milan, Italy, in a bid to keep up with the latest developments in the electronics sector. Production is due to start in 2000.

Computacenter in demand

Shares in Computacenter rose strongly to value the company at over £1.3bn as it launched on the London stock market. Computacenter, which supplies systems and services to leading UK companies, had a turnover of £1.13bn last year with pre-tax profit of £47.1m. The flotation turned its two founders into multi-millionaires and 30 of its senior managers into millionaires.

Hyperion buys Arbor

Hyperion Software has taken over Arbor Software in a \$700m deal. Together, the two US companies will be called Hyperion Solutions, with Hyperion stockholders owning 60 per cent of the merged company. Hyperion, which develops financial analysis applications, thus acquires Arbor's Essbase multi-dimensional database system. Hyperion had a revenue of around \$271m last year, while Arbor turned over \$82m.

IBM allies with Symantec

IBM and Symantec announced that they will jointly market a new family of anti-virus software products, combining their technologies. The deal should help Symantec to expand its business from the consumer sector into the corporate sector.

George Black's e-mail address: gbg26@diap.pipex.com

INTERNET COMMERCE IN EUROPE

Gap closing with the US

The UK and Germany are hard on the heels of the US and Japan in business adoption of the Internet, says a study by the UK government's Department of Trade and Industry.

Britain is holding its position against other countries and has narrowed the gap with the US in networked technologies, says the report.

The finding appears to

conflict with some earlier studies that suggested the UK and Europe were falling further behind the US in their use of Internet-related technologies.

However, another report by the router vendor, Cisco, confirms that Internet commerce in Europe is growing rapidly and indicates that Europe is starting to close the gap with the US.

Another inquiry by the

computing services company, EDS, also concluded that Europe was catching up with the US in use of the Internet and noted that Finland and Norway were the world's leading users.

This trend could be helped by the newly formed Alliance for the Internet in Europe, made up of industry companies led by 3Com, which aims to lobby governments for legislation which

will improve Europe's position.

Electronic commerce is likely to be boosted by an agreement at the World Trade Organisation not to impose customs duties on international electronic transactions.

A comprehensive study of trade issues concerning electronic commerce is due to be carried out for the WTO by late next year.

RESEARCH DIGEST

By George Black

Companies 'don't understand their customers'

Data warehousing has not yet resulted in UK companies gaining a better understanding of their customers, according to a research project conducted by SAS Institute, the business intelligence software vendor.

It found that 90 per cent still did not know enough to manage customer relationships adequately. Data warehousing, decision-support systems, and data mining techniques were being used by only about half the 100 blue-chip organisations surveyed.

ing the commercial potential of the Internet, according to a study carried out for the network software developer, Novell.

Many companies just use the Internet to publish information about themselves and only a third offer electronic ordering and payment, notes the Global Internet 100 survey. It says the best examples of using the medium well are United Airlines, Lufthansa and Time Warner.

The search for winning web sites: how to enter the new FT Business Web Site competition - see details on page 21. Closing date for entries is July 1.

Software is driving smartcard market

The growth of the smart card market will be driven by software developers, not by the card manufacturers, predicts the IT analyst, Ovum.

The card manufacturers have created a technology which is moving beyond their control, says senior analyst Duncan Brown. Suppliers and users will be able to develop their own applications without the involvement of the manufacturers. Ovum forecasts that 2.7bn cards will have been shipped by 2003.

Kiosks are set for rapid growth

Interactive kiosks are quickly becoming the vending machines of the information age, according to a study by Frost & Sullivan.

The world market enjoyed 37 per cent growth last year, it says, generating \$981m. Research analyst Robert Chomentowski says that once people have become used to kiosks, they prefer using them to queuing to talk to a customer service representative. The study suggests that acceptance will gradually become widespread as it did with automated teller machines.

Call for action against piracy

The European software industry could produce an extra 426,000 jobs in the next three years if piracy were reduced from its current level of 43 per cent to the US level of 27 per cent, it is calculated by the Business Software Alliance and consultants at Price Waterhouse.

Even a small reduction in piracy would greatly increase sales of packaged software and thus the amount of employment in the industry, says the report.

Web sites are criticised

Few of the world's largest companies are fully exploit-



More and more leading companies are now discovering the power of data warehousing to exploit existing corporate data, in order to create new, strategically

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مكتبة الامم

In the eight-and-a-half months since he took over as chairman and chief executive of Unisys, Lawrence Weinbach has already made his mark by restoring investor confidence in the US computer and computer services group.

The former Andersen Worldwide managing partner and chief executive has achieved this by slashing group debt, getting Unisys out of the PC manufacturing business and by refocusing it on the enterprise server and fast-growing computer services businesses.

Mr Weinbach, who took over from James Urroh in September, immediately announced plans to repay \$1bn of debt - \$814m of debt has already been paid back and a further \$186m will be taken care of no later than September 1999. After that, Unisys will have no debt repayments until 2003, which means, according to Mr Weinbach, that the group should generate free cash flow in excess of \$1.5bn over a couple of years.

"I joined the company because I believed that there was a very loyal customer base, that there were dedicated employees and that the products were good," he says, but adds, "the execution was weak... and frankly, the willingness to make some tough decisions - to focus the company - seemed to be elusive. After six months, I think my observations were correct."

"The products are very good and the service capability is very good. The way the company went about expanding its product-base and getting into the service business was not so good and, because of that, the company got in trouble."

When he arrived at Unisys, he took "a good hard look at what we had." At that stage, Unisys was selling about 350,000 PCs a year, equivalent to about \$500m of business. "It was a nice piece of business," says Mr Weinbach, "but it was in a market where others were sell-

'Being new to the company, one can be unemotional,' says Lawrence Weinbach, Unisys chairman and chief executive.

This interview is by Paul Taylor

Sharper focus for a rejuvenated Unisys

increase substantially more than us, where the margins were coming down, where the PC was becoming a commodity and where the customer was focusing more on price and cost-of-ownership than they were necessarily on the capability.

"Frankly, the PCs we were making were very good, they were good technology and fast. There was only one problem: they were also expensive in relation to where the market was going. It seemed to me that we shouldn't be in the business. Being new to the company, one can be unemotional."

At the end of December, Unisys announced that it was getting out of the PC manufacture and assembly business and would outsource PC and low-end server manufacturing to Hewlett-Packard. "We still want to have a whole array of products for our customers, but we did not need to be in the commodity business," he says.

While Unisys has never disclosed whether its PC business was loss-making, Mr Weinbach says getting out of PCs was "an appropriate economic decision." What is more, quitting the low margin commodity hardware business has enabled Unisys to build on its strengths in high-end servers and mainframes, such as its highly successful ClearPath product.

"Our capability there is excellent and the enterprise server market is growing," he adds. "We believe the whole enterprise area will continue to grow - more and more information is being captured; it's being stored, and consequently, you're seeing more and more servers out there."

While some companies might have been tempted to cut R&D spending, Mr Weinbach chose to maintain the R&D budget at the same level. Instead of spreading R&D spending over a wide array of products, it is now tightly focused on the enterprise server market. "The goal is that I want to be a mile deep and an inch wide, not a mile wide and an inch deep," he says.

That, says Mr Weinbach, is critical because maintaining this kind of focus will enable the company to continue the turnaround "and

away from our Unix customers," insists Mr Weinbach. "If you look at ClearPath, what it does is that it takes proprietary Unisys, creates a bridge and allows you to go open - either with NT or Unix."

ClearPath provides "heterogeneous multiprocessing", allowing users to run either Unix or NT or both. "That's why it has been a good seller," he says.

"We are pushing both from a services standpoint as well as a server standpoint into the NT environment, but we are going to protect and work with our customers."

In particular, Unisys is focusing its research and development effort on turning NT into a true enterprise operating system. "We are looking at the whole scalability, availability, manage-

ability and security issues that are required in an enterprise NT environment," he says. "We want - early on - to be one of the key players in the enterprise NT environment as it goes up-scale."

But while Mr Weinbach expects most of Unisys' hardware sales growth to come in the NT server area, he also emphasises that the traditional mainframe business remains important to the group. "I don't think the big servers or the large mainframes are as dead as some people want to make them," he adds. "Cost-of-ownership will come back and bite everyone in the tail as soon as there's a downturn. Sales of big servers are

Continued on page 21.
Managing information: reflecting on 50 years of IT, see feature on page 19.



Weinbach: 'I want to be a mile deep and an inch wide, not a mile wide and an inch deep'

Unisys' new man at the top

Lawrence Weinbach, 57, chairman, president and chief executive, Education University of Pennsylvania, and Wharton School. Career: Joined Arthur Andersen in 1961; became a partner in 1970 at the age 30; appointed chief operating officer of the worldwide company in 1967, and managing partner in 1968. In February 1997, he announced his decision not to seek a third term as chief executive because he did not want to be bound by Andersen's mandatory retirement age of 62. Mr Weinbach joined Unisys on August 31, 1997.



The FT Review of Information Technology

This review is published on the first Wednesday of the month. In addition, FT-IT features appear in the 'Inside Track' section of the FT on each of the other Wednesdays of the month. The IT Appointments section is also published each Wednesday.

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The next issue: Wednesday, July 1. Thomas will include IT in business-compatibility systems; and new supercard applications. Please IT news updates and interviews with key figures in the IT industry.

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Subscription services: full details appear on page 21 of this review.

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FT IT

Focus on IT in retailing

Here and on the following five pages, FT writers look at the advances in retailing systems:

□ Developments in loyalty schemes; the logistics chain See facing page.

□ In-store innovations: electronic wizardry in the marketplace. Page 6

□ Electronic commerce is booming but online shopping malls go quiet; the virtual store - now fashion goes online. Page 7

□ Point-of-sale systems - making technology less intrusive for customers; key questions on back office systems. Page 8

□ Decision-support systems; US case study. Page 10

For today's retailers,

"integration" is the name of the game when it comes to software and IT. Not only do they want a transparent data flow from the buyer's laptop and digital camera to the "planogram" store layouts downloaded to branches, but a seamless supply chain as well, with product and demand data from raw materials' supplier to end-consumer, all regarded as part of the total "enterprise".

While many will support "best of breed" software solutions with their mix-and-match interfaces, "enterprise-wide suites" are proving attractive for others: names such as SAP and Peoplesoft, once rarely heard in the retail context are coming to the fore.

In the US, the enterprise-wide versus best of breed debate has been dominating retail headlines in recent months with retailers seemingly divided over whether it is better to spend time and effort developing the interfaces for mix-and-match or simply throw in the towel and sign up for a total solution.

For many, the enterprise-wide model is seen as little more than a marketing ploy: "The marketeers of enterprise systems want captive customers," says Jim Lance, senior vice-president at Elder-Beerman Stores in Dayton, Ohio.

Meanwhile, Brian Kilcourse, chief information officer (CIO) at Longs Drugs

Information technology is helping to transform retailers from their traditional role as product-led merchants to consumer-driven marketeers, helping them to compete in the west's saturated and mature marketplaces. Penelope Ody reports

Stores in California, argues that "when you buy into this idea you aren't just committing to an application, you're committing to a whole culture and I see red flags all over that one."

In the US, retailers are talking of "user exits", insisting that the enterprise suite provides gateways out so that other "best of breed" products could be hoisted on, if needed.

The same debate is now an issue in Europe: in Holland, the food division of the Vender group - owners of Vroom & Dreesman - has thrown out merchandise management applications from Retek and Armature to embrace the SAP message in a £150m investment.

C&A, the fashion and clothing retailer, is also opting for the single message with installation of Comshare's Arthur Enterprise Suite at its two European buying offices and all its stores in ten countries.

Even companies such as Armature which had tended to focus on supply chain

offerings, are now extending their appeal with a central "library" of application tools to allow retailers to develop a more fully integrated solution.

"We operate in a highly competitive marketplace," says Wim van Dierman, financial director of the Dutch grocery chain, Spewer.

"Our market is extremely fragmented and we're introducing Armature's software to ensure we sharpen our competitive edge. By integrating supply chain information and purchasing behaviour at store level, we will be able to improve customer service."

That is, of course, the key, as retailers move from a product-led to a consumer driven market, they increasingly need to integrate information about consumer buying patterns with product data. Enterprise-wide applications can provide a ready-made package to ease the data flows.

"It's a saturated market," says Mr Christian Nivoix, general manager of IBM's Global Distribution Industry,

"and retailers are having to find new sources of sales growth - for many that means going global. That can mean physical expansion into new emerging markets - as with Carrefour and Wal-Mart in Brazil, or it means new channels to market using technology."

The obvious "channel" is electronic shopping via the Internet and interactive TV, but these are growing very slowly in Europe, despite the hype. Of more immediate benefit are interactive kiosks. The Lawson convenience chain in Japan, for example, has put interactive kiosks into its 9,000 outlets to create a "virtual inventory" taking minimal space.

"Shoppers can now buy tickets and travel in the con-

venience store," says Mr Nivoix. In addition, an IBM development with Nintendo adds an application for updating children's computer games with the latest versions - all within the convenience store kiosk.

In a similar development involving 7-Eleven convenience stores in Austin, Texas, NCR has created an in-store financial centre using basic ATM (automated teller machine) technology. Shoppers without bank accounts can now cash their monthly pay cheques and transfer money using on-line imaging links to a remote help-desk where a bank employee can see the cheque and authorise payment. The same ATMs are also being used to dispense entertainment tickets and telephone cards.

Category management - a technique for managing groups of related products as a whole - is also taking centre stage. "The category is becoming a profit centre," says Mr Nivoix, "and it is consumer-focused rather than seen in the old terms of 'vendor managed inventory'."

Best Buy - a leading US electronic goods retailer - is currently evaluating its approach to many new products. "They are asking: 'Do we sell tools to help the consumer have fun with digitisation?'" he adds. "If the answer is 'tools to have fun', then they need to bundle together the cameras, computers, and software to provide a total offer. That approach is creating totally new segmented category groups and putting considerable strains on existing retail supply systems which are still largely product and volume-led."

The emphasis on integrated networks is also influencing point of sale systems with the same aim-



Preparing for the euro: in Portugal, a supermarket employee shows a new French-made electronic price "label" that displays prices in the euro currency as well as Portuguese escudos

line network computer (NC) versus PC arguments that occur in other commercial sectors. In the US, Value City Furniture, with 65 stores in 13 states, has taken the NC route and is now installing 1,000 IBM Network Stations running Java at point-of-sale. Key benefits include rapid and easy system upgrades since there is only "one version of the truth" stored on the server, so expensive system reloading for every PC in the store becomes a thing of the past.

And integration is also spreading to workload management, as well. Oracle, is promoting "The Store Managers Workbench" which allows retail a single access point for store operations management, staff management, corporate systems and decision support.

Wang Global calls its offering "Work Management" which provides a system to manage and schedule projects across departmental boundaries. The problem in retailing, says marketing manager, Sally-Ann Smith, is that companies tend to buy packages to automate

areas of their business - such as point of sale, merchandise management and EIS - and they rarely look at the horizontal process and see the need for improvement across departmental barriers.

Also addressing this need is IBM's Qualified Collaboration Services - a subscription service now being used by companies such as Carrefour to link its buying offices and suppliers with a resulting 20 per cent cut in total buying office workload.

All these systems are contributing to the continued overall integration of retail systems - but, in a way, the end result is more fragmentation.

Instead of dealing in a volume marketplace, retailers are focusing on individual consumers and their buying patterns. "They will need a split approach in future," says Christian Nivoix. "Individual offers and customer focus for the top 20 per cent of shoppers who contribute most to profits, and a continued volume product emphasis for the 80 per cent of bargain hunters."

Combining these two quite different approaches in a sin-

gle enterprise solution is "the big challenge," he says. Meanwhile, two time-sensitive issues are demanding the attention of retailers. The year 2000 computer date problem is a proving a costly problem for many retailing businesses.

Software experts are warning that November 1998 will be the deadline for adequate testing of IT networks. Failure to solve the date change problem could easily cripple retailers' abilities to carry out critical business functions.

In Europe, retail IT systems are being converted for European Economic and Monetary Union (Ecom) and plans for the euro currency.

As the switch to euro-dominated accounts, transactions, cheques and credit cards takes place, tens of thousands of retailers will need to change their tills, vending and business systems.

Next month's review has a main theme of FT in finance and will look more closely at how the business world is attempting to solve the year 2000 computer date problem.



Intelligent checkout: this touch-sensitive NCR checkout system at a Sainsbury Supercentre in the UK is linked to a data warehouse for swift analysis of buying trends

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LOYALTY SCHEMES By Penelope Ody

Selling to a market of one

Retailers are adopting a 'carrots and cuddles' approach to customers - loyalty discounts plus added service to make shoppers feel valued as well

A straw poll of marketeers by Equifax at the Direct Marketing Fair earlier this year revealed that while 49 per cent of those questioned owned three or more loyalty cards, and 23 per cent possessed even more than that, some 41 per cent of respondents - all of them working in marketing - believed that the current state of 'loyalty cards' do not create customer loyalty.

Since 1990, many millions of 'frequent shopper' cards have been issued: in the US, around 38 per cent of all food stores now run loyalty schemes, while, in the UK, Tesco and Sainsbury have issued more than 20m cards between them.

The schemes are not cheap - investment by Boots, the healthcare and retail chain, in its 'Advantage' scheme in the first year (including setting up the database) will be around £25m, while Tesco has said that it needs an annual 1.5 per cent increase in sales to cover Clubcard running costs. That works out at about £50m each year.

To many, such schemes appear to offer little more than 'long-term discount' and there are growing signs of consumer apathy. 'Carrots' are not enough, it seems, to keep us loyal. Instead, the emphasis is switching to 'cuddles' with qualitative rather than quantitative benefits on offer.

In the UK, Sainsbury's well-known 'Shop and Go' self-scanning system can only be used by loyalty card holders. Other retailers are already talking of creating reserved parking spaces in store car parks for their top-spending shoppers.

For retailers, the initial aim of most loyalty schemes was to identify individual shoppers and so improve target marketing by direct, personalised offers: to sell more to existing customers, rather than work at attracting new

extremely unusual age group - 65-plus shoppers spending heavily on rap, rock and 'alternative' music.

Further market research revealed that these were grandparents spending on gifts for their grandchildren. So a special leaflet was produced detailing gift ideas and mailed to this group of 'seniors'. The result was a 17 per cent response, with sales up by more than 37 per cent and an average spend of £20 - an extremely successful piece of target marketing.

It was all about creating empathy with the customer, says Mrs Yvette Ascher, marketing manager for ICL's retail division. 'The seniors began to feel confident that they could go into a Camelot store and ask for advice about music genres that they really didn't understand.'

Significantly, too, as Camelot has switched attention to personal preferences and focused genre information,

it has been able to increase footfall and spend with successively lower value discount coupons from \$10 to \$2 to simply the promise of good advice. It has successfully made the transition from 'carrots' to 'cuddles'.

Rather different are the growing number of continuity programmes also now emerging in US loyalty schemes. These monitor shopper-spend over a longer period, thanks to sophisticated software, and allow for repeat promotional offers on successive visits to the store.

Instead of the familiar European-style 'multibuy' - buy two, get a third free - companies such as UKrops in the US spread the benefits to encourage shoppers to return.

'Typically, you'll have a 12-pack of Coke drinks on offer for \$1.99,' says Tracy Flynn, vice president for food industry marketing at NCR, which supplied the application, 'and there'll be a limit of four purchases in

the month, but you can only buy one at a time.'

The software can track individual purchases, via bar-coded loyalty cards, to ensure fair play, with the discount carrot used to encourage repeat visits and further spend.

But while retailers are becoming more sophisticated in their use of loyalty cards, others see them as a tool to promote quite different agendas. Mondex International, for example, is to launch a loyalty application for its electronic purse smartcards, later this year.

Mondex expects that the cards will initially be issued by financial institutions as electronic purses and then these banks will contract with various retailers to have the loyalty schemes added to the card.

In the US, Chase Manhattan Bank is already using this system to add a loyalty application from Burger King to its cash cards. According to Mondex, up to



Shoppers in Amsterdam: Dutch financiers are hoping to use retail loyalty schemes as an added-value product for electronic purse cards in the Netherlands. Picture by Linda van der Meer

six retailers could be involved in the initial UK launch and a number have committed to the scheme.

Dutch financiers, too, are hoping to use retail loyalty schemes as an added-value product for electronic purse cards in the Netherlands. The ChipKnip banking consortium has added a generic loyalty product, known as EasyChip, to its cards in a

scheme designed by UK-based loyalty specialists, Crawford Smith Consultants.

This product is targeted at what is known in Holland as the MKB group - companies with fewer than 99 employees so effectively the small and medium-sized shops which account for 68 per cent of Dutch retail trade.

A practical benefit for shoppers is that the rewards

are interchangeable: points collected from a butcher, baker or candle-stick maker go into the same pot to be redeemed from a gift catalogue.

To manage the exchange, EasyChip has established a 'national redemption bank' which keeps track of points issued and redeemed by retailers on a pay-as-you-play basis.

THE LOGISTICS CHAIN Electronic Data Interchange By John Kavanagh

Internet is no substitute for EDI

Electronic data interchange has a big role in channelling high volumes of retail data

Two technologies as different as chalk and cheese are being brought together to benefit companies seeking to trade electronically.

The uncontrolled World Wide Web is bringing new companies into stuffy old electronic data interchange (EDI), with its long-winded standards-making procedures, its coded electronic documents and its need for special software and telecommunications services. In return, EDI is helping to give business respectability to the Internet.

EDI transaction volumes have been growing at 20-25 per cent a year since international standards for documents such as orders and invoices became established in the

1980s. EDI has become a standard way of trading for the vast majority of big companies. It enables just-in-time ordering, speeding up stock turnarounds to a few days in the most efficient retail supply chains and creating close partnerships between customers and suppliers as companies share trading data for mutual benefit.

These users have standing contracts with big service suppliers which receive EDI messages such as orders and invoices in bulk and direct them to the intended recipients. The users have software packages which convert messages to and from EDI formats and typically link directly into their stock control and order processing systems.

The problem is that although well over 90 per cent of big companies in developed countries depend on EDI, only an estimated three to five per cent of all commercial organisations use it.

'Small and medium sized companies see an up-front

investment in special EDI software and hardware, they see the communications side as complex and expensive and they see the standards as complex and boring,' says Helmut Fritz, a specialist manager in this field at IBM Network Services in Europe.

'Meanwhile, they are getting on the Internet and believe this will solve their problems, but it won't on its own.'

Early enthusiasts for EDI over the Internet have promoted it as cutting out the middle man, the telecommunications service. Concerns over reliability and security remain - but only last month the UK's Electronic Commerce Association took the first step towards making the Internet a more serious option when it announced a project by eight EDI and business software suppliers, plus Internet service provider UUnet. In the first phase they will define what is needed in EDI software to enable companies to exchange EDI messages over the

Internet in a reliable way.

Even so, EDI telecom services believe the critical nature of electronic trading between businesses, and the trend towards contracting out anything that is not core to the main activity, leave the Internet's future here in doubt.

'The public Internet is a non-starter as a substitute for EDI services,' says Colin Billings, European marketing director at GE Information Services. 'This is an absolutely critical application and retailers must have total service reliability.'

In addition, the service organisations handle community management: for example we have helped companies bring in their small suppliers. A retailer has hundreds of trading partners and doesn't want the risk of getting swamped with phone calls if something goes wrong or if small suppliers need support.'

John Croucher, chairman of the IT group at the UK Institute of Logistics, agrees. 'EDI has a

fundamental role in channelling high volumes of retail data,' he says. 'The Web simply cannot handle such high volumes or guarantee the security levels provided by EDI offerings.'

However, the World Wide Web is nonetheless emerging as a way into EDI for smaller companies.

In the UK, Kingcup Mushrooms has become an unlikely pioneer of a technique which links traditional EDI with the Web. This small firm, with just 30 employees, including casual staff, has installed its first Windows PC and Web browser, to trade electronically with the huge Tesco supermarket chain.

Tesco sends mushroom orders in EDI format as usual to GE Information Services, where the data is put into a Web page designed to look like Tesco's paper order forms. Kingcup Mushrooms connects via GE's intranet (a private Internet) to get the details. It sends back an invoice in the

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E-commerce the malls go

 Bay Network

ONLINE SHOPPING MALLS • By Tom Foremski

E-commerce booms but the malls go quiet

Online malls are often static and dull, far less fun than real life shopping

Online shopping malls are an attempt to recreate a successful real world retail model on the Internet, but there are problems with this approach, and some attempts have ended in failure.

Electronic commerce is booming as consumers put aside fears of sending out their credit card numbers over the Internet, and as they realise the substantial cost-savings available. This is especially true in the US where buyers can save additional money by avoiding paying sales taxes on goods purchased from out-of-state retailers.

The most successful online retailers are companies such as the online book store Amazon.com and CD music retailer CDonline. Although these companies have yet to post a profit, they have rapidly become significant online retailers of specific types of products.

The same is not true for online shopping malls. Last summer, IBM quietly closed the doors to its online mall called World Avenue. Retailers complained that IBM had done little to promote the site and, just like in conventional malls, it had no large retailers to attract customers to the site.

US-based Shopping.com has also run into trouble. The company's auditors recently issued a "going concern" warning, as part of Shopping.com's annual financial report, that questions whether the company can continue as a going concern. Shopping.com says it is seeking additional financing.

"Online shopping malls offer no compelling value proposition," says senior analyst Vernon Keenan at US market research firm Zonta Research.

"There is a need to combine the front office with the back office operations of a retailer, and they don't do that. For large companies, it is better for them to set up their own websites. Smaller companies can benefit, however, in that an online shopping mall can help in marketing. But just offering a collection of links to other retail web sites, is not contributing to the growth of Internet commerce."

Linking front and back office operations is technically possible, says Mr Keenan. It is not an easy proposition but it could



Gavin Potter of Coopers and Lybrand: 'Leading businesses are now competing under new economic rules'

become key to a successful online mall. Virtual shopping malls such as the one offered by America Online, help bring large numbers of potential customers to retailers, but if customers cannot conduct transactions unless they go directly to a retailer's website, the online shopping mall offers little value, Mr Keenan adds.

Sites such as Amazon.com are successful, because they also take advantage of key Internet technologies that allow them to present a personalised shopping experience to each returning customer. For example, Amazon.com can offer

returning customers a list of book titles similar to the ones they ordered last time, and it can offer e-mail notification of titles as they become published.

These personalisation technologies are becoming key factors in driving online sales, especially if companies can combine them with demographic data on their customers. It allows them to quickly notice key trends and focus their marketing, making it more effective than traditional marketing methods that are more broadly targeted. These are areas where online malls lag behind.

There are also other developments that may make online shopping malls redundant. There are projects under way to develop so-called intelligent agents. These are essentially small software programs that would roam from web site to web site, collecting pricing information on various products. Customers could then choose the online retailer based on best price and any other factors such as service and availability.

Online malls may be able to succeed by using various lures to attract shoppers. For example, NCR's Knowledge Laboratory and University College London have jointly developed an "on-line soap opera" to help online shops market their products to consumers.

The soap opera stars Reiko, a virtual Japanese student in London who shops for designer clothes and CDs, and goes to restaurants and clubs. By clicking on what Reiko recommends, consumers can find out where to buy particular items and order on-line.

"Most shopping on the Internet is boring. The technology is there but people haven't taken to virtual malls. Our own research suggests that one of the main reasons for this is because they are static and dull, far less fun than real life shopping," says Dr Stephen Emmott, director of the

NCR Knowledge Lab. "You need to get a mass of people hooked in the same way as they hang on every episode of a TV soap opera. Reiko was created to do just that."

Dr Emmott and his colleagues believe that consumers may be more likely to accept shopping advice from such virtual entities as Reiko, that they have developed an affinity for, rather than a simple text message. This is similar to associating the face of a famous model with a fashion house or a cosmetic line.

While online shopping malls are currently little more than marketing vehicles, they, and other online retailing sites, can still drive product sales, even if customers don't shop online. A survey from US market research firm Cyber Dialogue, says that many customers look at online retail sites to gather information about products, but then buy them from local retailers. The survey estimates that \$4.2bn of US consumer goods and service sales were influenced by online information in 1997, compared with \$3.3bn in actual online sales.

"The Internet is becoming an integral part of the purchasing process whether the purchase is made online or offline," says Peter Clements, Cyber Dialogue vice president.

Today's leading businesses are competing under a new set of economic rules by exploiting the virtual information-based parts of their business, says Gavin Potter, a partner at Coopers & Lybrand Management Consulting (www.uk.Coopers.com).

His new book, *Business in a Virtual World* - co-written with Fiona Casanovska, and due to be published on June 19 - argues that lasting competitive advantage will only be gained by converting the physical elements of a business into virtual assets - for example, by selling over the Internet, rather than via a retail outlet.

THE VIRTUAL STORE • By Geoffrey Wheelwright

Now fashion goes online

A successful trial by UK fashion groups attracts 2.7m web requests a month - 70 per cent of buyers were women

The Internet has made it possible for new entrants such as popular online bookshop Amazon.com (see report, left) to establish Internet-only stores and steal a march on their rivals. Other retailers who have been quick to seize the opportunity include software vendors, record stores, and specialty food retailers.

The challenge facing the hundreds of retailers hoping to emulate the success of these pioneers is finding the common thread between them - what makes a good online store? It would seem, at first blush, that the immediate answer to this question lies in seven words: "We will have to order it."

Any consumer who has ever heard these seven words is a candidate for buying online. Whether you have heard them spoken at a book shop, vehicle parts store, delicatessen, record store or even a computer shop, you know two facts: firstly, that you are not going to get what you want, right away. Secondly, you know that you will have to rely on somebody else to obtain it for you from a third party.

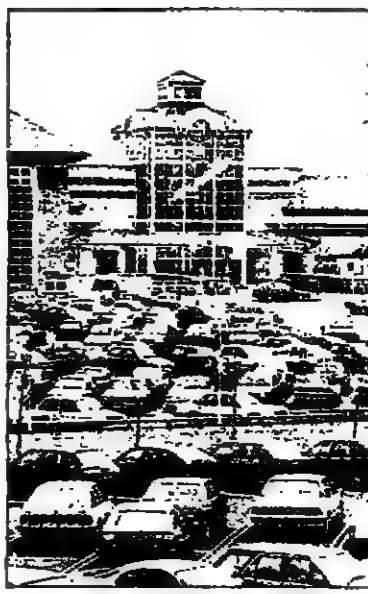
Stock levels

To many of us, this seems a distinctly unsatisfactory state of affairs. It is reminiscent of the famous Monty Python "cheese shop" TV sketch where John Cleese enters and begins asking for all manner of different cheeses, only to be fobbed off at every turn by a grinning Michael Palin. At the conclusion of this repartee, Palin admits to Cleese that he has been "deliberately wasting" his time. Cleese replies: "I'm sorry, but I'm going to have to shoot you."

Now many of us may not feel this strongly when we cannot obtain what we want from a retail outlet, but it is clear that customers do not want to be disappointed - and they do not want to wait.

Virtual stores on the World Wide Web offer a chance to put an end to all that: they offer us the promise of being able to instantly order whatever we want. The goods will almost never be out of stock - because the retailer is prepared for substantial worldwide demand - and the retailer will guarantee shipment to you within a very short period of time.

At least, that's the theory. Companies that have been able to turn this theory into reality - such as



Suppliers in the e-commerce sector hope that more customers will avoid the traffic to stay at home to shop online

Amazon.com - have found great success. But they need a lot more than a good website, an ability to source "hard to get" items and a commitment to customer service in order to make it happen.

They also need a good relationship with their suppliers - so that they can despatch items in the times that they promise - and they need a reliable method of shipment. Many have turned to courier companies, such as Federal Express and UPS, to provide the shipment - and they are increasingly using electronic commerce solutions to build links to their suppliers that ensure they will have the supply of goods needed to satisfy customer demand.

According to Robert Humphrey, a vice-president of European operations at leading electronic commerce software maker, Sterling Commerce, virtual stores cannot buy into the idea of electronic retailing in a half-hearted fashion. He suggests that they will make little headway if they use a great website to take customer orders, but then use old-style technology to get products shipped to them from suppliers.

"In terms of education, our challenge is in getting retailers to understand that they will benefit from expanding their electronic commerce programs," Mr Humphrey says. The other side of this equation lies in getting suppliers to meet demand from retailers to do business electronically, he adds.

If a retailer runs a website selling auto parts, but has to transmit its orders to parts suppliers via fax

machine and telephone, then it is leaving itself open to some big uncertainties about delivery times. These might not exist if the "back end" of the process was as automated as the front end. "You need to look at how you make EDI (electronic data interchange) and electronic commerce strategic in your business," adds Mr Humphrey.

Retailers who run virtual shops need to be careful about the way in which they approach their suppliers in requesting electronic commerce links.

"To succeed, there clearly needs to be a willingness for the retailer to understand the supplier's capabilities," concludes Mr Humphrey. "I think the retailers who understand the real value of electronic commerce know that they can't do it without the successful co-operation of their suppliers."

"It can't be a situation where the retailer comes in and says: 'I am the big retailer and you have to do this to keep my business.' You have to understand the supplier's capabilities and requirements - and then explain why electronic commerce is good for them as a supplier."

Clothing sales

Common sense would suggest that one area that might not be appropriate for Internet shopping is the clothing industry - where customers are used to being able to "try on" any clothes they want to buy to ensure that the look and feel right before they put down their money.

A recent Internet fashion shopping trial by the Arcadia Group (previously the Burton Group) and ICL, the UK-based computer services company, however, does not show this to be the case.

The companies recently announced that their six-month trial has been so successful that they are about to launch what they claim is the world's largest fashion shopping site online.

The trial involved seven high street fashion brands, including Evans, Dorothy Perkins, Principles, Top Shop, Racing Green and Burton Menswear. Their trial site delivered a total average of 2.7m page requests per month - and, during the trial, 70 per cent of buyers from the on-line stores were women.

A preferred method of payment was apparently with the Arcadia Group's Store Card, which the companies have interpreted as meaning that customers perceive a higher level of security when making online transactions with a store card. It could also mean that the customers involved in the trial tended to have more "spending room" left on their store cards than on other credit cards.

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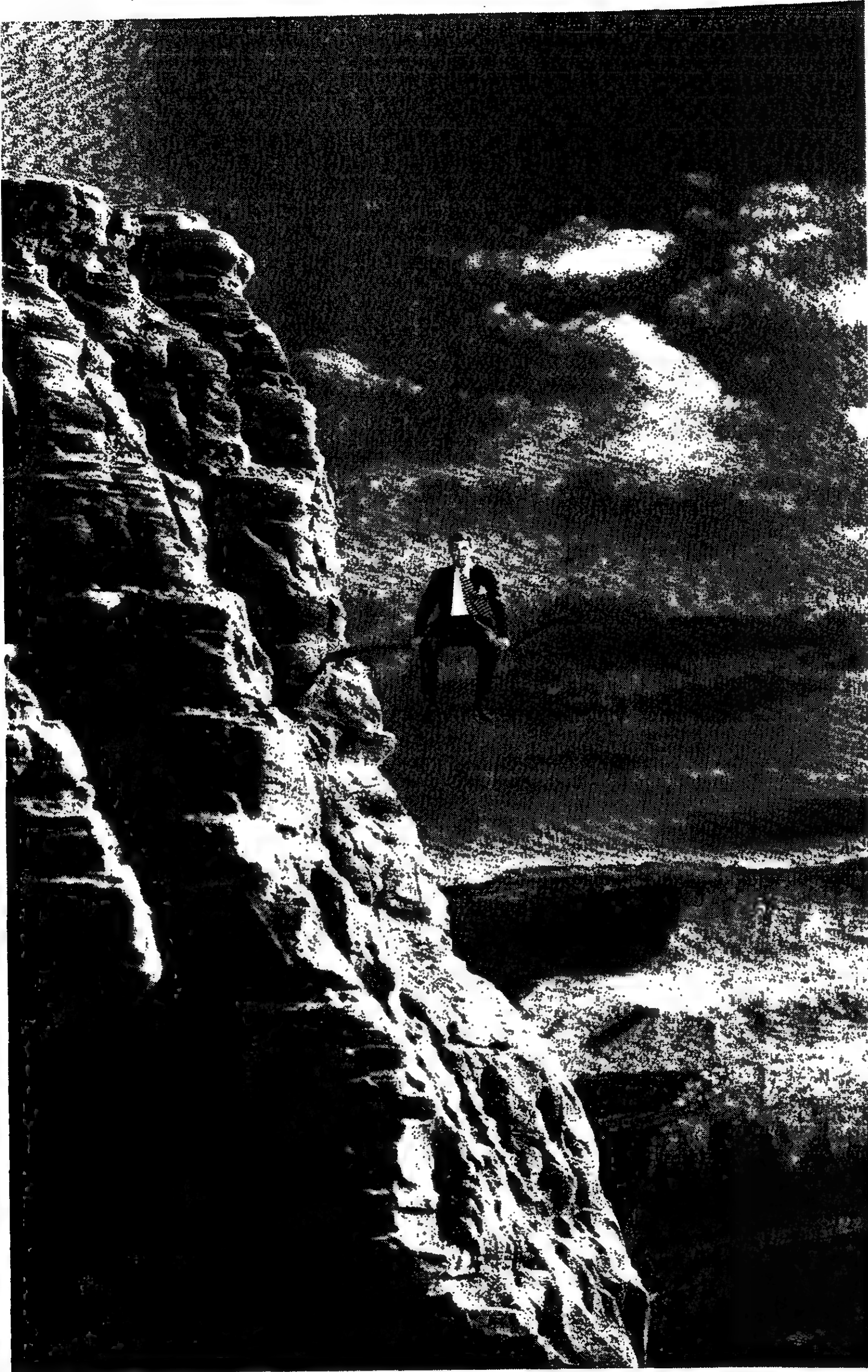


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POINT-OF-SALE SYSTEMS • By Mark Vernon

Technology should be invisible to customers

Opinions are divided over the benefits of self-scanning systems in terms of improved shopping speed and cost-savings for retailers

Unlikely as it may seem, point-of-sale systems in high street retail stores have been making the IT headlines in recent months.

In an environment of escalating competition and sensitivity to service, the technology that has the closest contact with the customer can make or break the differentiator with which the company sets out its stall in the marketplace.

However, Achille Norman, the chairman of the UK

supermarket giant, Asda, set the cat among the pigeons when he told the Oracle Retail Forum that there was no competitive advantage to front-of-house IT systems.

"Technology should be invisible," he says. "Self-scanning is intimidating. Our customers don't want to be computer operators."

Self-scanning machines are certainly at the experimental stage in Britain, as indeed they are in the US, where they are becoming relatively common.

"We have found that self-scanning appeals broadly across all markets, though there will be differences between Europe and the US," says Tracey Flynn, vice-president of food industry marketing at NCR.

"The hand-held unit tends to appeal to shoppers of lots of goods, whereas we expect the front-end self-check out to be more useful for a smaller number of items."

Mr Flynn does admit, however, that the systems in place today fall on both the criteria crucial for their adoption.

"They have to make the shopping experience better for the customer, which means quicker," he says. "And the pilots must show

savings to the retailer in terms of labour costs."

He believes that both these issues will be addressed in time, as retailers understand better how to manage new solutions while customers become more familiar with these innovations.

"We now have a machine which looks like an ATM, that most familiar of self-service devices," he adds.

Meanwhile, ICL, the UK computer services company, and RTC are pitched against each other by Sainsbury for trials to run in June in the bid to win the lucrative deal for point-of-sale delivery to 400 British stores.

Functionality and flexibility are the key drivers in the multi-million pound investment as open systems allow the company to cope with the changing needs of the business as well as adopt best-of-breed technology without having to deal with platform clashes.

Marks & Spencer is another high street brand spending in this area, again in an effort to move the company's IT forward to meet future demands.

"The goal is to install in-store systems that will 'speak' to one another," says Moira Nairn, store system development manager.

Working with Microsoft, the world's largest software company, and ICL in particular, Marks & Spencer will have NT workstations on the sales floor and in the back offices of its 290 stores in Britain and mainland



Advanced integration: the new Tesco supermarket in Pitsa, Essex, is equipped with more than 70 Siemens Nixdorf 'Beetle' point-of-sale terminals. The Tesco Progress project integrates scanning systems with the new terminals



Students for meals, using an IBM 486 touch-screen system

BAC OFFICE SYSTEMS • By Tom Foremski

Right decisions are vital for e-commerce

It is relatively easy to set up a website, but once the orders begin to increase, it becomes a challenge to see business operations.

When it comes to back office systems for retailers, the choice of systems can be critical, especially if a company wants to expand to the advantage of online commerce.

Microsoft's Windows NT is gaining making headway in the retail sector through low price, and lower cost for NT applications compared with Unix items.

For some companies, NT takes a natural choice, especially if they have ready standardised on Microsoft software in other parts of the organisation. For others, Unix still remains the best choice, offering more functions, reliability and security features, compared with Windows NT.

But Microsoft continues to improve Windows NT with a significant upgrade coming out next year, and although it does not match all the capabilities of the much older and more established selection of Unix systems, it is gaining converts. The UK department store, Harrods, for example, is gradually moving away from a mixture of proprietary technologies towards Windows NT.

"Training times have been cut by two-thirds and elapsed time to service customers has been reduced by 55 per cent. We have also experienced soft benefits such as improved customer service through itemised receipts," notes Jim Giannantonio, IT director at Harrods.

Other leading UK retailers such as Marks & Spencer and Allied Carpets are also installing Windows NT systems. But for some companies Windows NT or Unix are not the only choices. UK camera retailer Jessops recently opted for a back office operating system called Real32 from UK-based Intelligent Micro Software on which to build a point-of-sale system for its stores.

"If we opted for Windows NT, we'd have to replace all of our existing hardware, up to 400 terminals. Unix would have proved difficult to support remotely, most of our branch managers aren't computer literate, and Unix would have presented procedures that were too

complex for them. "Really, we were looking for a multi-tasking solution that enabled us to keep all of our existing hardware and application packages with minimal disruption," says Jessops' operations and systems manager, Yasmin Teja.

While Jessops' choice was constrained by its legacy systems, for retailers looking to move to online commerce through the Internet, the choice of Windows NT or Unix becomes a strategic one.

"NT is making headway in terms of electronic commerce applications, but there are some issues of scalability that mean that Unix still remains a key choice for many companies," says senior analyst Vernon Keenan at the US market research firm, Zonta Research.

The challenge with online

Windows NT is making headway in electronic commerce applications

commerce is that a retailer has to judge just how much computing capacity it must invest in. Too little, and a website can quickly be swamped, turning away disgruntled users who may not come back. Put in too much capacity and you tie up too much money servicing small numbers of online customers.

"Deciding upon the best architecture is a challenge. You don't want to have a lot of money tied up in systems - or too little - and then have problems of scaling up. For many retailers, Unix offers a good choice, making it easier to scale up quickly if demand is there," says Alfred Chaung, chief technology officer at BEA Systems, speaking at the recent IT Forum conference in San Francisco.

"Using Unix to scale up can be cheaper than NT and Unix still has the reputation of being the best choice for large, mission-critical systems," points out Mr Keenan at Zonta. The choice

of operating system for back office operations is less important than choosing the kinds of services retailers need. This is vital in online commerce applications as retailers seek to set up web-based ordering and transaction processing systems.

While it is relatively simple to set up a website and offer information on products, and then add online ordering features, it is another matter to have a full-fledged commerce site with all the back office functions such as order-processing, customer service, shipment-tracking and other features.

To fulfil such demands, US-based OrderTrust was set up in 1995 to offer order processing services to retailers. It operates a large network that handles many of the essential back office functions for a retailer, while plugging into their existing IT systems.

"Retailers have to ask themselves whether they are marketers or technical specialists. Building a back office system can be very expensive and complex, and with many retailers dealing with year 2000 and maintenance issues, they don't have the resources to build such systems," says Tom Little, president of OrderTrust.

The OrderTrust network is being used by online retailer, Impulse! BuyNetwork, for example, using web banners on popular web sites, such as Yahoo!, to connect more than 15 leading merchants and allow them to quickly shift excess inventory at bargain prices. OrderTrust handles all parts of the sales transactions, checking credit card information, shipment-tracking and order-processing.

"A lot of retailers don't have a direct sales channel, so getting into web commerce is a challenge. It's easy to set up a web site, but once orders begin to increase, it becomes a challenge to scale operations. We can handle all of the order-processing, allowing retailers to concentrate on marketing, suppliers, and managing their customer relationships," adds Mr Little.

OrderTrust also offers its clients customer analysis services that help them maintain customer relationships and bring them back for new sales.



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Decision-support systems By Rod Newing

No quick-fix solutions

Decision-support applications still fail, but success can come with proper planning

According to research recently conducted by Data Warehouse Network, 60 per cent of data warehousing implementations fail to produce promised results.

Sean Kelly, the company's managing director, says a nervous corporate culture, rather than technological issues, are responsible for this problem.

"A wide range of political, cultural, organisational and project management and mismanagement causes are responsible for this state of affairs," said Mr Kelly, while addressing last November's Data Warehousing conference in London.

These causes all come into effect at different stages of the project, but they should all be taken account of in the initial stages, especially during the feasibility study, project planning workshops and writing the project charter, he says.

In the same venue, seven years earlier, similar reasons were given for the 70 per cent failure rate of executive information systems (EIS). Both the data warehouse and EIS provide managers with information to help them make decisions. An EIS takes summarised data from a range of transactional systems and stores it in a multi-dimensional database where it is accessed by powerful graphical software tools.

The data warehouse takes transactional, rather than summarised data and stores it in a relational database, where it can be accessed by a wide variety of tools.

The data warehouse is the more powerful tool in terms of its ability to use detailed customer information for a range of powerful applications throughout a company. However, data warehousing brings out all the same management issues and corporate cultural problems as an EIS and is designed and built in a similar manner.

"IT organisations think it is good to build a warehouse, but are disappointed because it solves no problems," says David Gelardi, program director of business intelligence marketing for IBM's new server group.

"You need a specific business problem to drive it, involving users who can benefit from good quality data. You should start with a small prototype, even based on a single individual, and then begin to build up the big warehouse."

One approach to controlling a data warehouse implementation is the use of stand-alone "instant" or pre-built data marts. A properly conceived data mart is a small departmental decision-support database containing a sub-set of data from an underlying data warehouse. It is designed to give

just that particular group of users the data they need for their specific business requirements.

However, "instant" data marts dispense with the cost and complexity of the underlying data warehouse and are fed directly from the transaction systems.

One difficulty is that it fails to provide a single integrated view of the organisation and its customers. Microsoft, the new kid on the data warehouse block, is the only mainstream database vendor to succumb to the seductive attractions of instant data marts.

In the past, stand-alone data mart salesmen may have promised low costs and a quick return, but not explained that islands of diverse information are being created that do not give a unified view of the business and its customers. Data marts are not miniature versions of data warehouses and miss the primary goals of flexibility, extensibility and an application-neutral data model of a data warehouse to support strategic business intelligence, says Kevin Strange, an analyst at the Gartner Group.

"Instead, they bring back many of the mistakes of the past, so organisations should prevent the proliferation of stand-alone data marts and ensure that the data warehouse is used as the source for data marts."

Forrester Research believes that

most data warehouses are simply misconceived as passive containers of data. "It's an evolving application that has to continually change with the business," says Ted Schadtler, a software strategy analyst.

Decision-support systems are on the cusp of explosive growth in investment, scope and expectations, he adds. Businesses need to build their warehouses as dynamic learning systems in order to detect change early. This enables rapid business learning through feedback loops that allow new ideas to be put into action with minimal delay.

A survey of Fortune 1000 companies by Forrester shows that 70 per cent of respondents want business people to build data warehouses.

"Business skills and a user perspective are essential to data warehousing," says Mr Schadtler, "along with technical and project management skills."

One attempt to improve the return on investment of data warehouses is to build industry templates that solve the problems faced by that particular industry, such as "churn" in the telecoms industry, where a data warehouse can identify the characteristics of customers most likely to move to a competitor.

Consultants Price Waterhouse

were the first Data Warehouse Network is also involved in several such initiatives, including one with Oracle, the leading database vendor. Forrester believes that smart integrators will build practices around vertical markets, such as financial services, retailing, telecoms and utilities.

The secret of a successful decision-support system, such as a data warehouse, is to start with a small implementation, but to execute as part of a sensible overall strategy. Mr Kelly recommends the 80-20 rule: "Eighty per cent of the potential benefit of a data warehouse is obtained from a design that is only 20 per cent rigorous."

"The most successful data warehouses have been designed top-down and sacrifice detailed design in favour of establishing a high-level data model."

Companies should take careful note of the continuing high failure rate of all forms of decision support systems. But, far from being discouraged, they should take it as a warning that the big competitive advantage of better data exploitation only comes through careful initial planning.

Most of all, potential buyers should ignore any vendor that offers a quick-fix solution, since sustained long-term competitive advantage does not come overnight.

US retailer pursues IT systems with military zeal

A large-scale data warehouse tracks global sales for the Army and Air Force Exchange Service

With \$7bn in sales, a retailer on US military bases ranks as one of the larger global retail operations - yet its activities are not widely known.

In February 1997, AAFES brought up the first of the new applications on an NCR 3600, which has a separate system from the NCR 5100 processing point-of-sale data. This application was a decision-support system to enable users to access catalog sales data.

Full development time from business requirements to production is only four months. The other applications were developed later: one that tracks detailed point-of-sale at customer information was brought online in August 1997; the other tracks warehouse inventory levels of fashion goods and was made available in October 97.

About 120 users access these systems. Now, after an initial learning curve, says Mr Santy, "users are 'on their own' to access the data, to create their own reports, in minimal interface with the IT group."

Flexibility on the part of the DSS Server 5.0 which has a "data marting" function, says Mr Santy.

Simply defined, data mart is a subset of data warehouse. If users restrict themselves to certain subsets of data, the data can be processed much more quickly.

In the past, defining data mart was a technical task assigned to a database administrator or other MIS types. It also involved going into the data mart to make sure the data was correct.

Under the DSS Server 5.0, the system can be instructed to automatically update a table at a user-defined frequency, essentially creating a dynamic data mart. All without the database administrator involvement. The overall effect is to decrease information system investment and therefore development time.

So, if a user wanted to a report with just those customers who have a status "active duty" and have not at least one purchase of \$25 in the last six months, the "data marting" function not only enables that tab of information to be created but also saved and automatically updated.

The user could do this every month, creating a tailor-made, decision-support report without MIS involvement.

With the implementation of the new data warehouse, AAFES has provided two big benefits to its end users: first, AAFES has avoided locking users into predefined queries. The MicroStrategy toolsets enable users to change queries and reports "on the fly".

The system also provides access to daily information, which was not readily available for catalogue-department users and user in other areas. "Now we have the data by day," says Mr Santy. "Before, they would have to wait and capture the results by week or month."

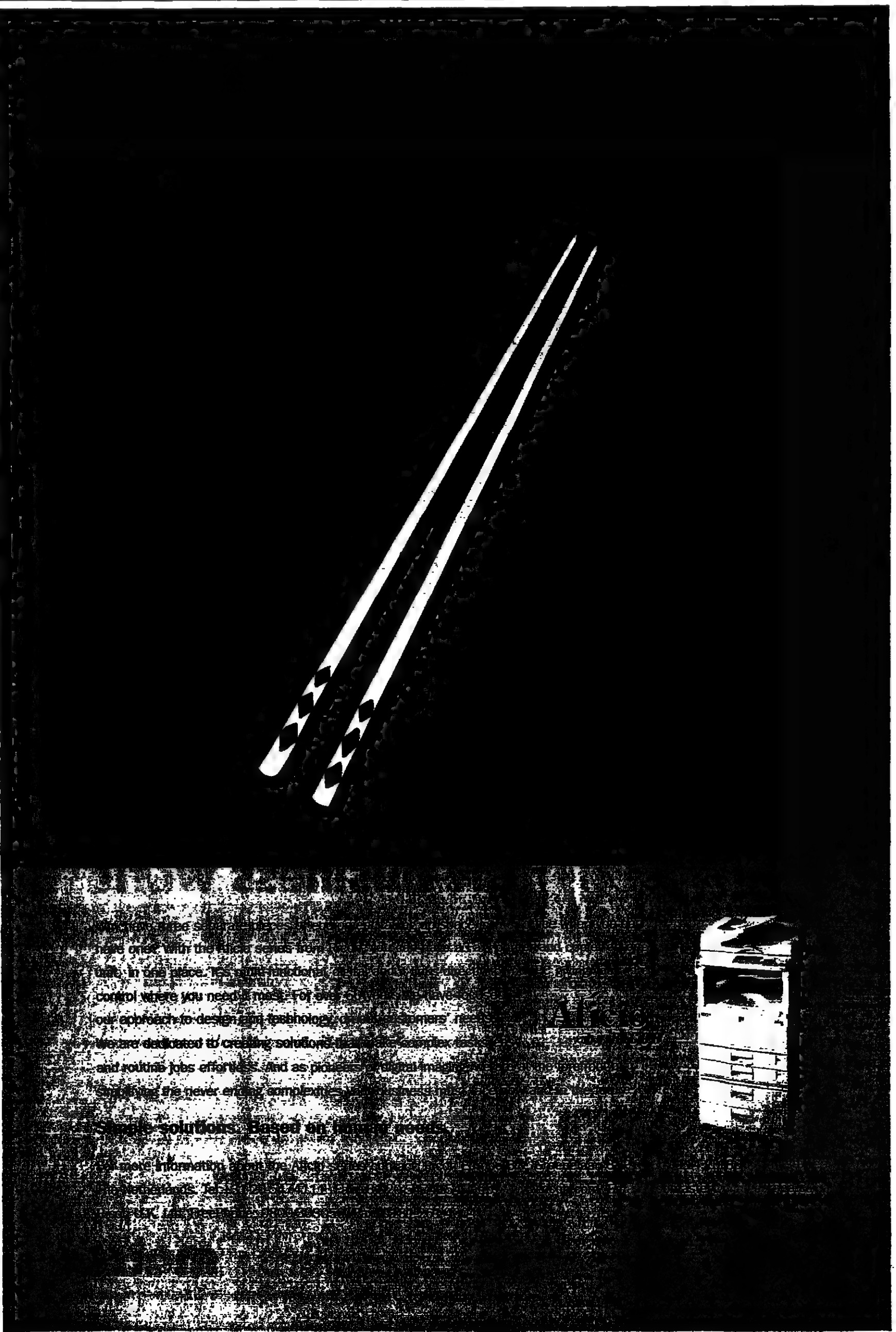
As companies have discovered in many industries besides retail, users' appetites for information grow along with a data warehouse. This sets up a classic conflict in organisations between the keepers of the data, the MIS professionals, and the users of the data.

The trend, however, is to bypass MIS by giving end users more and more control over the data. For many retail MIS departments, providing detailed data to buyers in other than a static reporting system is a decision-support project that has only been tackled in the recent past.

Now, as online analytical processing (Olap) tools and other pieces of decision-support infrastructure have become more sophisticated, retail management information system departments are better set to serve their two demanding customers: the consumer and the end-user of information.

Now, as online analytical processing (Olap) tools and other pieces of decision-support infrastructure have become more sophisticated, retail management information system departments are better set to serve their two demanding customers: the consumer and the end-user of information.

Gary Robins
in Minnesota



New deals are emerging

The relationship between the world of sport and the IT industries is changing, as many areas of sport are run more like businesses, reports Rod Newing

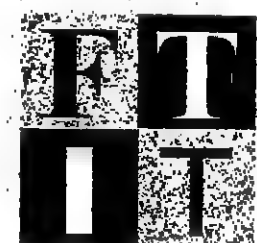
The relationship between the sports and information technology industries has always been close, with IT having a role in the Olympics since 1960. But the nature of the relationship is changing. Originally, the sports industry needed IT services, but did not want to pay for them. "The sports industry, leagues and associations generally want to save as much money as possible in order to spend it on players and other elements of the sport," says Bill Moses, vice president for broadcasting, cable and sports industries at IBM.

The solution was for the sports industry to offer marketing rights as payment, with the IT industry finding attractive opportunities for exposure in front of a wide audience. In this way, when the McLaren Formula One racing team needed powerful workstations, McLaren offered Sun Microsystems (UK) limited marketing rights as payment. Sun found the exposure so valuable that a fully-fledged worldwide partnership has grown up between the two companies.

In general, while sport is increasingly dependent on IT services, the main IT vendors receive little income from it. For instance, the IT budget for France 98 - organisers of football's 1998 World Cup - was originally set at \$40m, yet very little of it will ever be spent.

"We recruited EDS, the information services supplier, Hewlett-Packard, the computer systems company, and Sybase, the software company, as technology

sponsors because they can supply everything that's needed," says Philippe Verrier, IT director for France 98, who was previously involved with the Alberville Winter Olympics. "As a result of external benchmarking, we feel that the marketing value is greater than the services we are providing," says Ms Wynn Willis, director of mar-



IT in SPORT

In the month of the World Cup, IT writers look at the increasing importance of IT in a wide range of sports

keting programmes for EDS. In fact, Mike Shelton, marketing director for Sybase Europe, admits that Sybase even pays cash over and above its contribution, to benefit from a higher level of sponsorship than it provided in 1994.

In the past, the IT industry has "carried" many areas of the sports industry. Because

IT is needed early, before funds are raised, they are the first to be signed up and therefore act as bankers, as well. Now, however, the sports industry is in a state of transition.

"Over the years it has really depended on sports sponsorship to support it and to give it the money to operate," says Ms Eli Primrose-Smith, IBM's director of worldwide Olympic and sports sponsorships, who was previously managing director of World Cup 94.

"The sports industry is becoming increasingly driven as a business, with all the business pressures and dynamics faced by a retail food chain or bank. The industry is understanding that it has to operate as a business, which gives us the ability to deal with them as a normal business customer."

The move from analogue to digital technology is also creating revenue opportunities because it gives sports organisations the wider abilities to capture the performances, for which they retain copyright, and store and distribute them.

"You can't go in with cost-savings - the key is to show them how they can make more revenue," says Mr Moses. "We make money by helping to capture, store, identify and log performances to identify when it occurs and where it occurs on the field, and distribute them securely. We also help to develop new business models to exploit the technology."

This could be setting up their own television channels or Web sites. For example, IBM has formed joint ventures with the National Hockey League and Professional Golfers' Association of America. IBM supplies the technology and the sports organisation provides the "content" - and they work together to exploit it.

"The emergence of the electronic marketplace has



Preparing for the World Cup: the organisers - France 98 - recruited EDS, the information services supplier, plus Hewlett-Packard, the computer systems company, and Sybase, the software company, as technology sponsors "because they can supply everything that's needed," says Philippe Verrier, IT director for France 98, who was previously involved with the Alberville Winter Olympics. EDS also has deals with the National Basketball Association, Major League Soccer and the Women's World Cup

provided the IT industry with an avenue to expand direct revenue-generating opportunities with the global events arena," agrees Ms Willis.

EDS has deals with the National Basketball Association, Major League Soccer and the Women's World Cup - deals that are commercial and involve no marketing rights. The France 98 World Cup Store is also a commercial venture with Hewlett-Packard.

However, ongoing partnerships such as these, plus those with the formula One racing teams, are still not possible with the world's leading sporting events, such as football's World Cup and the Olympics. This is because each event is organised by different committees - generally, experts on the sport itself who have little understanding of the demands and complexity of the IT required to stage it.

Committees are looking for maximum funding and therefore may change sponsors. For instance, EDS has had to rewrite the France 98 results system. This had been developed to utilise Sun Microsystems workstations using the Unix operating system in 1994, but because Hewlett-Packard is a

sponsor in 1998, they wrote an identical system to run on Windows NT Workstation on portable notebook computers. "We have tried to explain to the sports organisations that you can't rip out your technology every two years because you have a new technology sponsor," says Mr Moses. "Technology today requires a longer-term strategy."

In keeping with previous events, the organisers of World Cup 2002 will not recruit sponsors until after this year's event. Both EDS and Sybase hope that the next organising committee will take the existing technology arrangements into account.

IBM has a long-term deal with the International Olympic Committee, which expires after the Sydney Olympic Games in 2000. Although it had an option until the end of 1997 to extend it by four years, it is still negotiating to extend it by eight years. However, there is both an element of sponsorship and commercial outsourcing at "best customer price."

"It was always contemplated that our sponsorship would only be a portion of what was ultimately needed

for the games and that there would be an outsourcing element," says Ms Primrose-Smith. "The scope of IT goods and services needed for the games are far beyond what we can give as a sponsor, because the marketing value was not equivalent to the full cost."

For example, IBM will be paid for operating its systems during the Sydney Games.

Sema group, the European computer services supplier, combines sponsorship with commercial contracts. Whereas its work for Euro 96 and this year's Asian and Commonwealth Games is provided in return for marketing rights, it has a purely commercial contract for its work for the Sydney Olympics and other events.

It seems that sponsorship is providing a valuable means of promoting the IT industry, yet this must surely be a passing phase. In years to come, it can only be in users' interests for the industry to move to a more traditional model where the sports industry becomes a significant net source of revenue.

Sponsorship: why IT companies are willing to take the risk: see page 12.

GLOBAL EVENTS

A showcase to the world

Organising international sports events presents unique challenges for IT companies, explains Rod Newing

Information technology is an essential ingredient of organising most sports events, whether a local tennis or ball-game tournament or a global programme, such as football's World Cup or the Olympic Games.

However, those providing IT solutions for sports events, whatever their size, share a set of common problems: Firstly, the sports organisers are not IT specialists. These groups are often set up from scratch, but must become totally effective for a short intensive period - and then disappear.

In global events, sports organising groups become the size of a Fortune 500 company within only a matter of days. For example, the Atlanta Committee for the Olympic Games, which has disappeared, had a budget of \$1.6bn and 2,000 employees for a 17-day programme.

France 98, the French organising committee for the 1998 football World Cup, has a budget of \$400m and 680 employees, and will chiefly operate between June 10 and July 12.

This temporary nature impacts the IT contribution - "you have to monitor the overall project, not just the IT part," says Philippe Verrier, IT Director for France 98, organisers of the 1998 World Cup. "When delays occur in part of the total project, you must calculate the impact, then make swift changes."

Sports facilities may be temporary or rented. The Atlanta Water Polo facilities were erected in the car park of the aquatics centre and IBM only gained access to one rented facility on the night of the opening ceremony.

Sports facilities are not usually designed with IT equipment in mind, so there are no cabling ducts, air conditioning or adequate power

supplies. At one venue, IBM found that TV crews had taken up the available power supply. And in Nagano, at the Winter Olympics, technicians had to wrap electric blankets round computers in unheated buildings.

With the temporary nature of organising committees, new employees arrive daily and many of the IT users will be volunteers who are only available just before the event starts. Systems must therefore be designed to be easy to use, without training, especially for broadcast commentators and journalists.

IT requirements of the big events are so complex that no single IT company can provide all the services necessary, so groups of companies are appointed, with one of their number being appointed as integrator.

As the official IT supplier to France 98, EDS is responsible for the project and works with Hewlett-Packard, the official hardware and maintenance supplier, including medical and drug-testing equipment; Sybase, the provider of software for application development and data management; and France Telecom, supplying telecom services, including local and wide area networks. At the Winter Olympics, IBM led a team of suppliers including Panasonic, Kodak, Xerox, Seiko, NTT, KDD and Hitachi.

IT systems need to be re-used as much as possible at various events. For instance, the France 98 results system is almost identical to that used in World Cup '94 and was written by the same people and has already been used for a year in US major league football.

Other facilities, such as ticketing and computer-aided design services need to take advantage of the latest

Turn to next page



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SPORTS SPONSORSHIP • By Patrick Harverson

The motives of corporations which sponsor sport are relatively easy to understand.

There is the opportunity to reach either a broad or a specially targeted audience, the chance to improve brand image through an association with the positive aspects of sport and its associated passions, and the access to tickets and hospitality packages for clients, customers and staff.

Yet for IT companies, sport offers something more – the opportunity to showcase technologies and technology services in a testing and meaningful working environment. When it works, the benefits derived can be worth more than money can buy.

If it goes wrong, then the negative impact can be substantial, not least because any failure to deliver on promises is made in the public eye.

IT companies are increasingly willing to take that risk. Their growing involvement in sports sponsorship does not just reflect the industry's eagerness to become involved with popular national and international events, but also the need of sports organisations for technology solutions to infrastructure and operational challenges.

"Solutions is the key word," says Eli Primrose-Smith, vice president of worldwide Olympic and sports sponsorship at IBM. "You cannot organise a modern sporting event without technology," and if there is a need for hardware, software, systems integration, and consulting, she says IBM offers the lot.

Martin Trees, European marketing strategy director for EDS, says there is a single compelling reason for an IT services company such as his to become involved in sporting events: "We are trying to sell an idea that we can make things better. That's not something you can get across in advertising."

It's not something where you can stand up and say "we're really good at this". What you have to do is find something tangible that is an example."

Among the examples he proffers include EDS using its technology expertise to improve airflow across solid bodies for Jackie Stewart's Formula One motor racing team and the US Olympic cycling team, both of which carry the EDS name.

The company is also the technology supplier for this summer's World Cup in France, where it will provide the datastreams to the 12,000 journalists covering the event, and for the London marathon, where it originated the use of microchips in runners' shoes to provide accurate split times during the race.

Yet sponsoring sport for IT companies is not just about technology provision, says Wally Schoch, marketing communications manager for Compaq in Europe.

The branding exposure through television coverage from events such as the Compaq Grand Slam Cup of tennis, held every September in Munich, and the ability to reach business decision-makers and IT specialists are key to the value of a sports sponsorship deal, he says.

At the Munich event, hospitality is also a vital element of the sponsorship. Because it is now held in September, it coincides with the Oktoberfest festival, a perfect backdrop for the entertainment of customers and staff, says Mr Schoch.

Why IT companies take the risk

The delivery of a technology service can enhance an IT company's reputation for backing up its promises



Good news for trivia pundits and football fans: multimedia kiosk, specialists, Barcrest Multimedia have manufactured the 'World of Carling Kiosk' – shaped as a pint of lager – and incorporating the latest touchscreen technology from MicroTouch. The kiosk will appear in 2,000 pubs throughout the UK

"The Grand Slam Cup is a major tool for brand awareness, but it is also a tool for key meetings with customers," says Mr Trees. "IBM also puts great store by the use of hospitality at events. At the recent winter Olympics in Nagano, it hosted 250 senior executives from companies around the world."

At EDS, Mr Trees agrees that the opportunity to entertain clients and staff at the events is one of the biggest attractions of sports sponsorships. It provides an "immeasurable" return, he says.

But a return on what? Finding out how much IT companies spend on sports sponsorship is nigh on impossible because the sponsors and sponsored jealously guard information on the value of their deals. However, it is known that the big corporate sponsors of global events such as the World Cup and the Olympics can pay as much as \$20m for exclusive category sponsorship rights.

Ms Primrose-Smith at IBM says the company never "writes a cheque" for sponsorship in fact, disputed by rival IT companies, but provides goods and services up to a certain value comparable to the dollar cost of the rights deal.

Finding out whether sponsors get a good return on their investment is just as difficult as discovering how much they pay for them.

Not surprisingly, everyone claims their deals represent value for money. "We are constantly monitoring and tracking the results when it comes to brand image. We are also measuring exposure to our pr base," says Compaq's Mr Schoch.

Sometimes, the results don't add up, and prompt decisions such as the recent move by Compaq to withdraw from golf events and shift money elsewhere – for example, sponsorship of the Rockets' basketball arena in Houston, Texas, and the National Collegiate Athletics Association of the US.

This pruning happens all the time. When Ms Primrose-Smith joined IBM in 1994, the company was funding about 250 different sponsor-

ships around the world. Subsequently, all those that were not global in nature were dropped, and today IBM is involved in the Olympics, the National Basketball Association, the US PGA golf tour, the Masters golf tournament and the four Grand Slam tennis events. The only national sports property it is involved with is German athletics.

One deal IBM turned down was the 1996 World Cup, as Ms Primrose-Smith explains:

"We asked our European IBM people to value the benefits package, and it was valued at \$10m-\$15m at the time. Then we valued the cost to us of delivering the package of IT desired, and that was \$55m."

The shortfall, she says, could not be made up. "It was a bad business deal for us."

Martin Trees at EDS says sometimes there are elements of a sponsorship that are impossible to value. With the World Cup and the London marathon, EDS's main aim is to reach two audiences: customers or potential future customers, and potential future employees.

According to Mr Trees, the message to the latter from the company's involvement in sport is "it's sexy and exciting. They're fun projects." There is no way to measure that appeal, he says.

Along with others in the IT industry, Mr Trees is clearly convinced sports sponsorship works. It is most effective, he says, when delivery of a technology service enhances a company's reputation for backing up its promises. As Mr Trees puts it: "You have to ask yourself: 'Would you pay that money to get that much in advertising?' The answer is no."

"What you say about yourself in advertising is nowhere near as valuable as what other people say about you."

A milestone for Unisys in Open Golf Championship

Since 1980, Unisys has provided the Open Golf Championship with an on-site system to record and report scores for the officials, spectators and the media, writes Michael Wiltshire.

This year marks a fresh milestone in the service with Unisys introducing a completely new system based on the Microsoft Windows NT operating system and next generation servers, networking technologies, mobile computing and new software designs.

Designed especially for the Open, the new Windows NT-based solution will enable an even more reliable, fault-resistant delivery of information critical to officials and broadcasters. Unisys is using this year's Open Championship to enhance the way it captures and presents more detailed data about the tournament's progress and climate.

Among the key developments is the introduction by Unisys of a client/server network of more than 100 Unisys Aquanta computers including servers, workstations and notebook PCs to replace the former mainframe system. Because it is designed for demanding distributed computing environments in business, the Open Championship's Aquanta systems are running Microsoft Windows NT.

As tests have already shown, this will provide a computer platform for the



Scores will be available via the Internet and over handheld PCs

scoring software that is even more highly reliable than before and also provides a platform for rolling out

advanced scoring features more easily in the future. The big task of implementing a large-scale information

GLOBAL EVENTS

Technical challenges

From previous page:

technology. IBM has a long-term contract with the International Olympic Committee in order to make reuse of systems easier.

Whatever the event, it will require many other IT-related services, including accommodation arrangements, accreditation, event scheduling, ticketing, transport, kiosks, information systems for media and accredited personnel, materials management, medical services, project management, recruiting and managing volunteers, results, retail merchandising, security, VIP management, weather fore-

casting and many others.

This diverse range of systems must all be linked and share the same data source.

Another problem which sporting events pose is the need for total reliability without an opportunity for a full-scale test. Every component has to be tested thoroughly on its own, but the whole system is not in place until the last moment. IBM spent 14 months testing before this year's Nagano Winter Olympics. By the end of April, France 98 should have a network in place. PCs and printers will be connected during May and it will support a global event

from 12th June!

"What we do for global events is a snapshot of what we do every day for our customers," says Ms Wynn Willis, Director of Marketing Programmes for EDS. "In business we also have pressure of fixed deadlines and the global challenges are very similar. We have helped the French Organising Committee to grow from 20 IT infrastructure to the global network of a Fortune 500 Company, demonstrating our ability to manage explosive growth. Fixed deadlines and global complexity are big issues for our customers, so major events are a good showcase to the world."

SPORTS WEB SITES • By Rod Newing

Where bias is a benefit

Unlike television broadcasting, the Internet offers fans only the information they want to see

The use of sports websites is growing at a rate of up to 700 per cent a year, at a time when the number of Internet users is growing at 300 per cent, says IBM.

The website for the Winter Olympics at Nagano, Japan, attracted a maximum of 87m hits, compared with 17m for the Atlanta summer Olympics. Meanwhile, France 98 has been designed to receive 100m hits/day.

"Having been around for three years now, the concept of the official event Web site is catching on," says Jose-Luis Iribarren, IBM's Internet strategies programme director. "It is becoming a feature of the tournaments and fans now expect and look for it."

In earlier days, event organisers waited to see what they could learn. They have improved their understanding of the benefits of the site to the event, so they now take a much more active role in the promotion of the site and are providing more and better content which fans are appreciating. New functions and features have significantly enhanced the users' experience and fostered their loyalty.

IBM has considerable experience because it hosts Web sites for the Olympic Games; plus the Australian, French, US Open and Wimbledon tennis championships; the US Masters golf championship; the Professional Golfers' Association Tour; the Ryder Cup; and the World Golf Village. Other sites include the National Hockey League;

National Football League; and the SuperBowl.

Objectives for site managers can be highly ambitious. At the Winter Olympics, IBM wanted to "capture the spirit of the games." The France 98 Web site (<http://www.france98.com>) aims at "sharing the excitement and beauty of football and the World Cup," according to Gerard Gouillon, World Cup 98 relationship manager at EDS, the information services supplier.

"Sports content is very suitable for delivery online," says Mark Hardie, an analyst with Forrester Research. "If you can't see the event,

The World Cup website is designed to receive 100m 'hits' a day

the next best thing is to get the very latest scores and statistics. The website gives 'content' that you can't get from a television – and, anyway, most people can't have a TV set in their office."

For instance, for the masters, IBM had a Java applet that provided a small on-screen leader board, delayed by a few minutes. Users could select up to ten golfers to follow and future golf sites will have a graphic of the hole that will show where each shot has landed. New technologies make it easier for users to access the content, so they stay longer, getting more experience and

viewing more Web pages.

It is the ability to select the teams or competitors that sets the Internet apart from television and radio, that have to produce unbiased broadcasts.

"Bias is good because sports fans mainly want reporting about the teams they follow," says David Clarke, managing director of Virgin Net (<http://www.virginnet.net>), who used to be a professional footballer with Leeds United.

Virgin Net is a consumer-friendly Internet service provider that is seeing usage of its sports services increase at a rate of a thousand per cent. It provides live audio broadcasts of European games across the Internet and has thousands of visitors from the US, South Africa, South America, New Zealand and Canada.

"As a service provider, we are building communities of people with the same interests – and sports fans are a natural community," says Mr Clarke. "They want to hear news about their team and come together to chat. And they appreciate debate, confrontation and banter."

"When their team loses badly, they want to communicate with other fans and don't want to hear about teams that have won."

The Net brings together disparate people with a common interest from all over the world and allows a club to address its distant fans. For instance, two months before the event began, the France 98 site had already attracted 10m visitors from 160 countries, led by the US, Brazil, France, UK and Japan.

Sports sites can enhance the user-experience by providing not just statistics, but extensive interactive access to privileged information or inaccessible celebrities. This adds value to the live delivery of commentary that would not otherwise be available. E-mail to top ath-

letes is now common and, in Nagano, Japan, 1,500 of them set up their own Web pages.

Widespread customisation will be the next logical step, says IBM, as Web server software profiles visitors and customises the website for their personal preferences. This will make it easier for users to navigate through the mass of data, such as the 48,000 different Web pages that were available on the Nagano site by the end of the games.

Mr Iribarren also expects more valuable content to be made available. "Most of it is developed for print, TV and radio," he says. "The Internet will become part of the planning process to capture more electronic content."

It can even appeal to people who are not fans. "I am enjoying the Whitebread Round the World Race site (www.whitebread.org) and I am not even a sailor," says Mr Hardie. "It's so interesting – it tracks the position of each boat and has on-board video clips. With sports sites, we're seeing the Net emerging as a valid form of entertainment that will rival live performances and TV broadcasts."

"Sport is like an international language," says Ms Fat McCarty, editor of Reuters SportsWeb (www.sportsweb.com). "When people are travelling or working abroad they can always find local sports to watch, but they still want to keep up-to-the-minute with their home teams."

"Although all our reports are written in an unbiased manner, the visitor can select just the news reports they want and zero in on what they are interested in."

World Cup interest is overwhelming, he adds, "but people don't want to follow all 32 teams in what is the biggest ever tournament." Ms McCarty illustrates the difference between broadcast and Internet reporting: "If you don't follow football, you can still get full details of all the other sports that are going on!"



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RESULTS SYSTEMS • By Rod Newing

Crucial role in global events

Sports fans around the world now expect instant, accurate results via broadcasts and the Internet

Few IT systems have such a high profile as the results systems that lie at the heart of international sports events. They have to capture events as they happen and distribute them to a wide range of users, especially the live television graphics, scoreboards, broadcast commentators, journalists, news agencies, organisers, national federations and a worldwide audience on the Internet.

As IBM discovered at the 1996 Atlanta Olympics, (see February's FT-IT Review), small failures can achieve global publicity. Nevertheless, the same systems worked almost flawlessly at the recent Nagano Winter Games. "Technology won gold in Nagano," says Francois Carrard, director general of the International Olympic Committee. "They were games of high technology with a human touch."

All events tend to fall into one of four broad categories - these are team, judged, timed and head-to-head events. Although the results system will be a complex suite of applications, if the event is multi-sport it will need to cope with the needs of each type of event.

Timed events, for example, require full integration with electronic timing systems, whereas at judged events, judges enter scores, which are then forwarded to the head judge who holds approval or veto power.

In events such as gymnastics, where scores are averaged, the approved marks have to be automatically calculated. The demand for statistics, especially from TV companies, means that it is not enough just to capture scores. At both the Olympic Games and France 98, volunteers close to playing areas capture events - as they happen - on a notebook

computer.

At the Olympics, staff have a graphical presentation of the pitch and a touch screen. For every incident, such as a goal, throw-in, missed shot or foul, the volunteer touches the screen to show where the event happened and then touch an icon on a toolbar to identify the type of incident. The data is transmitted from the stadium, moments later, to the central data centre. In France 98, the information should reach the journalists within two seconds via the Paris data centre.

In IBM's Atlanta offices, it was possible to watch the split times of Olympic swimmers appearing almost instantaneously in the results system as they were seen turning on a live video feed.

While an event is under way, systems must record statistics and send them to broadcast commentators, along with competitor details. When the event is over, results need to be made available to officials, athletes, media and the world at large.

Users of France Telecom's cellular system can subscribe to a service that sends them results as they happen using the short messaging service on their handsets.

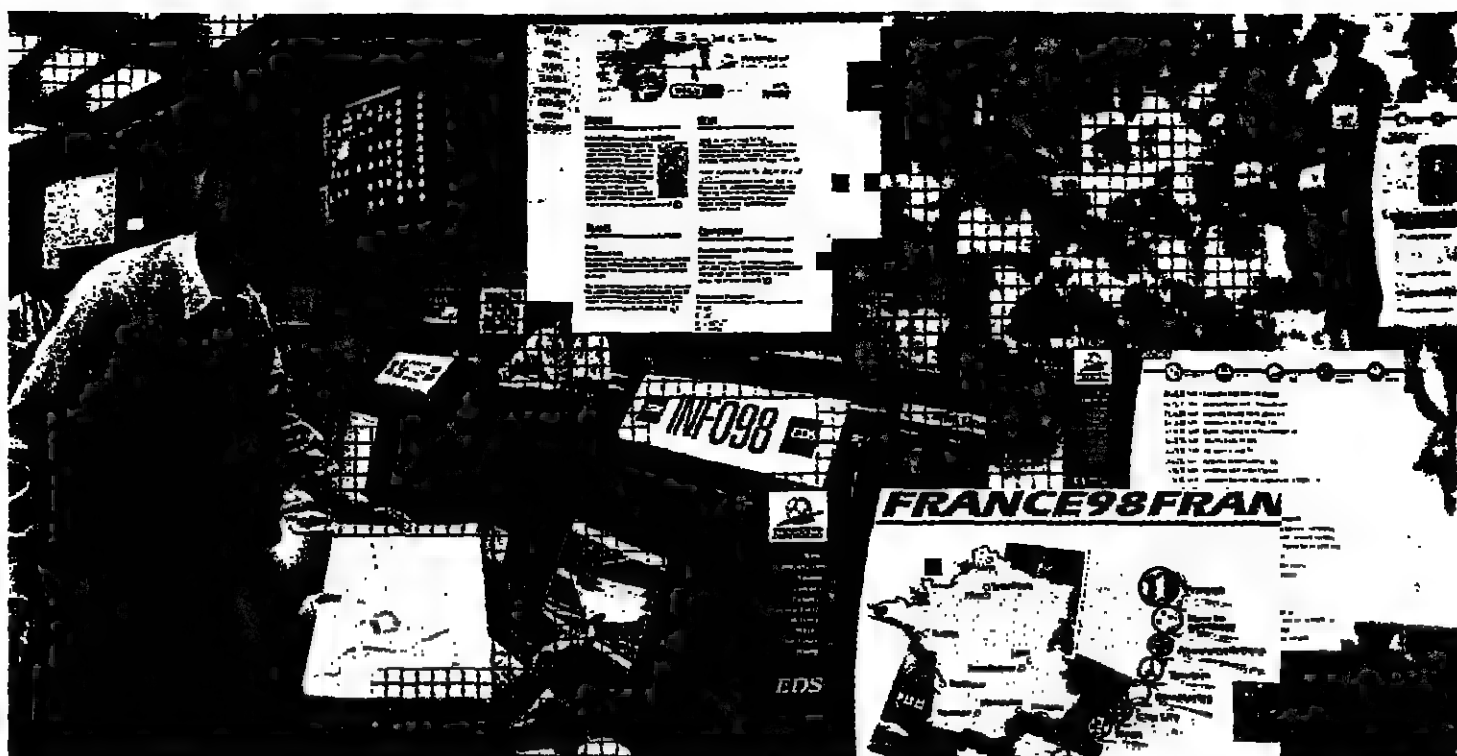
Similarly, users of the Cellnet cellular service in the UK can receive a text headline. By simply pressing the "send" button, they can then hear a short recorded voice-report from the Press Association.

The France 98 results system takes images, data and video, customises it and makes information available to the media through wireless palmtop computers, cellular telephones, pagers and the Info France 98 Intranet. Information is given to the public through the French Minitel system and the Inter-

net. Broadcasting media need to be able to provide up-to-the-minute details, so a commentator information system is required. This takes a feed from the results system to show statistics about the current event and results from others that are going on at the same time.

Another feed from the information system provides athlete biographies and statistics. Commentators need to log in with their nationality, so the system can highlight information on their national athletes.

It is essential that results systems are "intuitive" and easy-to-use, because users, including those collecting results, are volunteers or media, who may not be computer literate and will have little or no opportunity for training. It is also essential



Instant information: the broadcast media receive details within seconds while hundreds of Web sites offer results and background information on teams and players

that the systems do not interfere with the event. Back-up and redundancy is needed at every stage in the system, as event schedules cannot be missed because of faults in timing or scoring systems. The France 98 results system has already

been used in 400 matches and major league matches in the US. "We have fully tested it in action and are confident it will work," says Dan Cooper, senior project manager for France 98 (web site: www.france98.com). "However, the best test was

the one-day training session with the volunteers on April 2, because we didn't know what their level of knowledge would be in advance." Every large event has to keep everybody involved up to date with what is going on, which is done through

"information kiosks" attached to the event's intranet. These provide reference material, such as competitor biographies and images, event history, current records, schedules, transportation, weather forecasts, entertainment and so on.

They also provide dynamic information such as news flashes, full results, statistics and details of new records. Electronic-mail and bulletin boards allow competitors, officials and the media to communicate with each other.

MERCHANDISING AND DIGITAL TV • By Mark Vernon

Sporting chance of a sale

Technology could open the way for mass consumer retailing, linked to sports events

to do with the opportunity.

"A lot of companies have digital platforms," he says. "They just have no idea what they are going to do with them. It is like the start of television in the 1940s. People were very unsure. We are in exactly that same position now."

But the sports merchandising opportunity presents the possibility of an excellent business case. For sport, the greatest market usually exists after the event itself.

More often than not, it is the merchandising which converts the box office returns into a profit. But there is, so far, a disconnection between the event itself and the purchasing decision.

Tailored broadcasting brings these two together. Mr Moroney's argument comes on the back of a more general one about the value of the Internet as a retail channel.

He believes that despite the hype, broadcast media, not the Internet, will be the channel through which mass consumer online retailing is delivered for reasons of economics and ease-of-use.

The Internet "client", the PC, is both costly and complex. The broadcast "client", the television set, is both pervasive and approachable.

This is not to say that sport is not big on the Web. The largest sports site in the world, Soccerstat, owned by the Daily Mail, scores more than 2m page hits a week.

From this, advertising revenue can clearly be generated, but it is yet to be proved as a retail channel. In addition to the immediacy of tailored broadcasting, there is also the possibility that it will bring the cost-per-sale ratio down as a result

of the economies of scale introduced by the technology.

This, in turn, could open up the sports merchandising market to teams that do not have strong brands apart from their own supporter base.

The ability of tailored broadcasting to reach specific audiences in a more targeted way could, for example, then be attractive to teams outside the premier leagues.

Using traditional channels, they have been limited in their sales and marketing activity to those they can physically reach, even though they very much need the extra merchandising revenue to continue operating.

"The problem is that, because the whole idea is to tailor the activity, each situation will be very specific," says Mr Moroney.

"Marketing for Manchester United or Colchester United, over national channels or local cable stations, are very different activities that depend on the perception of the customer."

"Manchester United might be able to justify a joint promotion to give out figurines of players at McDonalds, for example, but the same clearly would not run with Colchester."

"The 'trick', as the content owner or broadcaster, is to ask what you are attempting to achieve, and then select the best route to solve the problem."

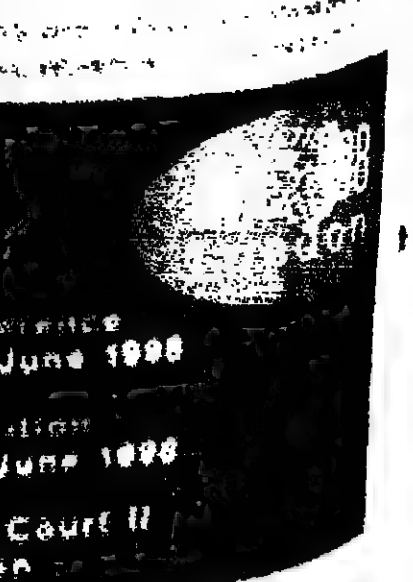
Other limitations have to be negotiated in terms of the legislation which already surrounds sports merchandising. For example, advertising can only

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FT-IT 14 IT in SPORT

MOTORSPORT • By Michael Dempsey

Where speed counts for everything

The pace of change in design for Formula One cars is accelerating with the high-profile involvement of IT companies

The merger between business and sport has become a modern cliché. But Formula One racing, with \$720m spent annually, takes this marriage of interests to new levels.

Clearly, racing cars have evolved dramatically since the classic Grand Prix cars of the 1950s, but the design and development component of this season's Formula One cars would do credit to the most sophisticated IT projects in engineering or the financial sector.

Computational Fluid Dynamics, or CFD, is a familiar term in the aerospace industry. Traditionally, airframe designers used the vast processing capabilities of the largest and most expensive mainframe computers to calculate the airflow around the fuselage of an aircraft.

Cray supercomputers, representing the pinnacle of mind-numbing mathematical prowess referred to in IT circles as "number-crunching", were the normal tool for this job. But as the processing power of workstations has grown exponentially, so the science of CFD has become more affordable.

Supercomputing is still a desirable resource. The Red Bull Sauber Petronas Formula One team is in the early days of a supercomputing project in collaboration with the Federal Institute of Technology in Lausanne.

Theodor Klossner, Swiss marketing manager for workstation manufacturer Silicon Graphics, knows the team well. The Sauber Petronas team uses 45 powerful workstations from Klossner's company.

"They are doing the chassis design and engineering analysis," he explains. "All 45 machines are networked together to give super-computer-type of performance."

Each Silicon Graphics workstation costs \$30,000

and the overall package is believed to cost in the region of \$1.5m. This is a typical figure for the price tag on Formula One IT resources.

CFD is making a difference at the West McLaren Mercedes team, with a battery of computers from Sun. The home of the Java language and a long family of design workstations has made a policy of testing out its very latest chip-sets with McLaren.

Steve Raby, workstation business manager at Sun in the UK, says Sun rushed the brand new processor for its Ultra 60 series over to McLaren to see what they could do with the improved power and speed. It was April 1998 and the McLaren team were trying to fine-tune designs between races.

"CFD, airflow calculations, took them four days on our existing range of machines," says Raby. "The new processor did the work in three days."

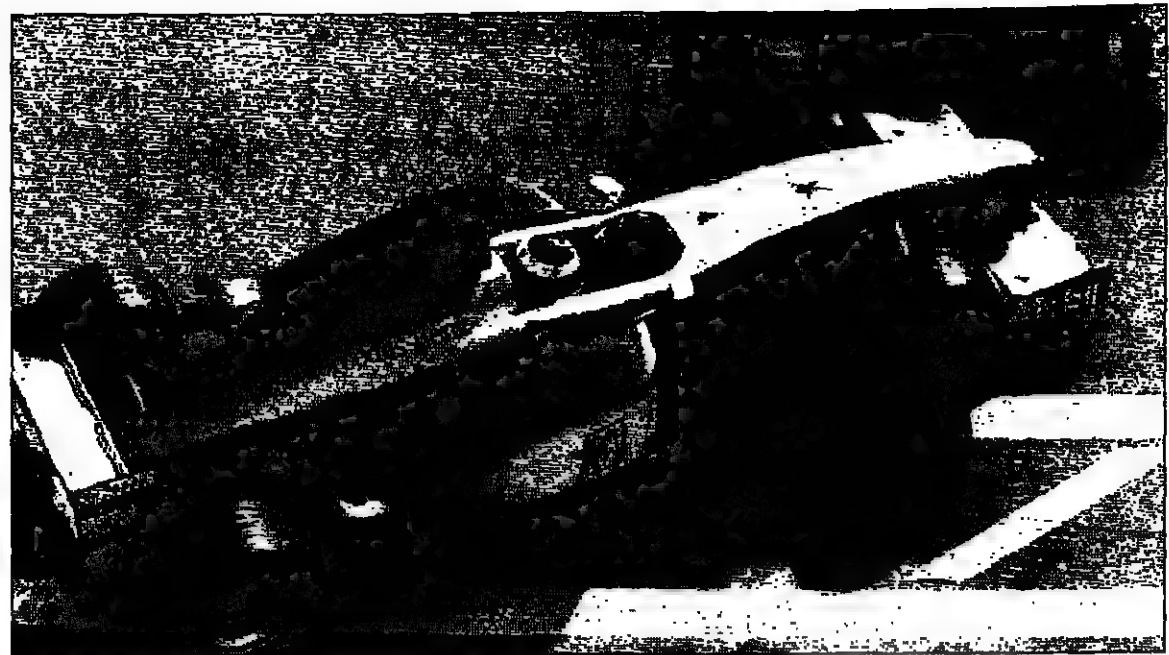
This does not sound like a dramatic difference, but in the world of Formula One, with races every fortnight, the extra room gained by using the Ultra 60 is very significant. "This means

they can run a new design item four times inside three days instead of three times," Raby explains.

Sun is not the only high-tech company behind McLaren. The team, which is currently enjoying a winning season, benefits from \$1m of annual sponsorship from software giant Computer Associates.

CA donates sophisticated software that reads into the measurements taken from sensors on board McLaren cars. More than 100 types of information are recorded as the car hurtles round the track at up to 200 mph. Just one of these sensors is called a "potentiometer" - this is a small cylinder using electrical resistance to assess the performance of the vehicle's gear shift.

Computers from Sun and software from CA then convert this data into a digital format. "We want to understand what the car is doing," says Patrick Lowe, chief engineer in charge of vehicle technology at McLaren. Lowe faces a challenge borne out of the team's regiment of sensors. "We record about 20 gigabytes of data a year. But we only use about



Technical number-crunching on supercomputers is a valuable resource for McLaren cars

1 per cent of that data."

For CA, the McLaren connection offers the chance to prove its technology in a dramatic environment.

Jay Huff, director advanced technology Europe at CA, is frank about the motivation behind his firm's Formula One connection. "Formula One is very popular with all kinds of IT people," he says. Huff wants visibility for products such as CA's TNG software.

TNG stands for The Next Generation, sells for between \$2,500 and \$10m and is intended to manage large systems, combining the input from networked computers and non-IT elements of a business. TNG is aimed straight at the mass of data through which Lowe wants to navigate, and is being used to raise his use of sensor information above the previous 1 per cent figure.

In the McLaren pits, TNG is put through its paces pulling together the telemetry data from over 100 sensors and trying to correlate this information in a constructive way for the team engineers. "If we can manage Formula One, we can manage your factory floor" - this is the message from Huff.

With its corporate database heritage, CA is well-tuned to digesting formidable amounts of information. Another CA application known as Jasmine is geared towards the Internet and multimedia marketplace.

This field, demanding easy

presentation of complex facts, fits neatly into the world of the Formula One hospitality lounge, where high-spending executives are wooed by the commercial interests that work hand in hand with the race teams.

Kiosks at the McLaren hospitality tent now offer interactive displays allowing guests to call up information on drivers and cars through the Jasmine software.

Geoff Banks, sponsorship manager with Hewlett-Packard in Europe, recalls one incident that sums up how the IT industry has made an

impact on Formula One. HP is a technical sponsor of the Jordan Mugen-Honda team and maintains ties with the Stewart Ford and Benetton teams.

"In Melbourne a couple of years ago, the Jordan team had a problem with an axle. They found a flaw with the design on Wednesday, used our workstations to re-draw the design on a Thursday, and submitted the new design to the axle-making company on the Friday."

By Sunday, the revised axle was in test at the UK's Silverstone track. "The abil-

ity to use computer-aided design, or Cad, on machines like our \$150,000 K-series workstation, has dramatically decreased the turn-around in Formula One design," says Banks.

In a business where speed counts for everything, the high-profile involvement of the IT sector is accelerating the pace of entire design shops.

Hewlett-Packard and the Jordan team: a motorsport report will appear with the July issue of the FT-IT Review



HP is a technical sponsor of the Jordan Mugen-Honda team, and maintains ties with the Stewart Ford and Benetton teams. Above: IT checks being made at this year's San Marino Grand Prix in Italy

MERCHANDISING AND DIGITAL TV

Time to tear up the rule books

From previous page

occur at natural breaks in the game.

In a cricket match, this is usually at the fall of a wicket, which would not provide the best opportunity to sell a team-branded cricket bat if it is one of the same team's batsmen that has just been bowled out.

However, the laboring capability would allow adverts to be "pulled", or "pushed", according to the mood swings being experienced by the supporter.

"The technology will allow you to do almost anything," says Mr Moroney.

"Limitations on promotions will not be set by the channel. It is more a question of what can be done to commercialise the opportunity."

"It's time to tear up the old rule books and throw them out of window. The chance is out there for the creative merchandising partner to draw up the new deals with the clubs."

If the message has yet to come home to sport, other services are perhaps more

alert. Consider a small but illuminating weather channel delivered by TPS, the second largest digital satellite broadcaster in France: a variety of local reports, specific to individual areas, are broadcast simultaneously over a "fat" data stream. The subscriber can select the one appropriate to them and have it instantaneously appear on the TV screen.

Prediction

The point is that this mode of operation is convenient

not only for the end-user but also for the broadcaster and all the other parties in the chain. "In a year's time there will be a huge amount of activity as people suddenly wake up to all this," says Mr Moroney. "Then it will increase and consolidate for four years after that."

But for now, he believes that if the broadcasters have barely thought about the possibilities, those involved in fulfilment certainly have not. As for the owners of the sports brands, they have not even heard of it.

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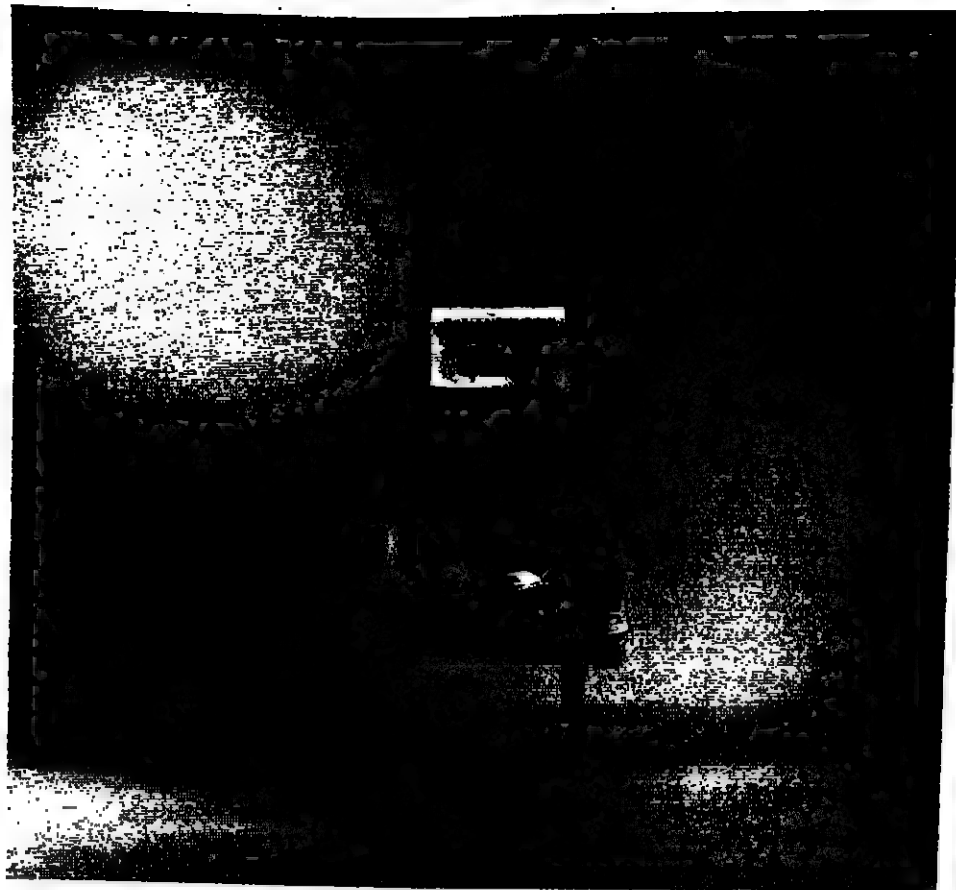
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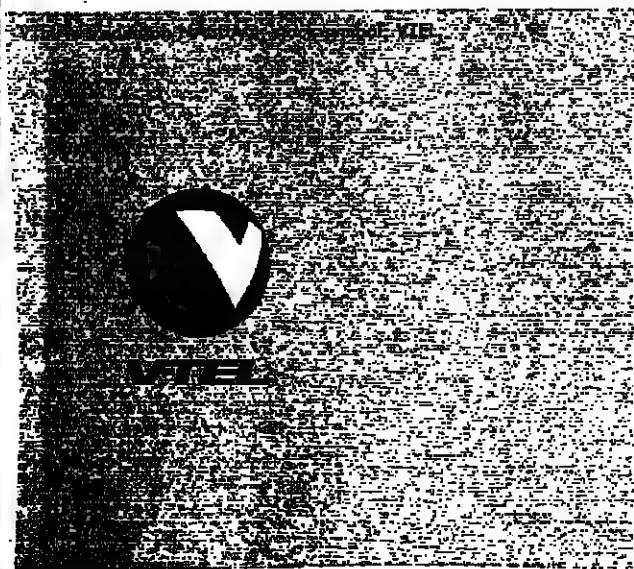
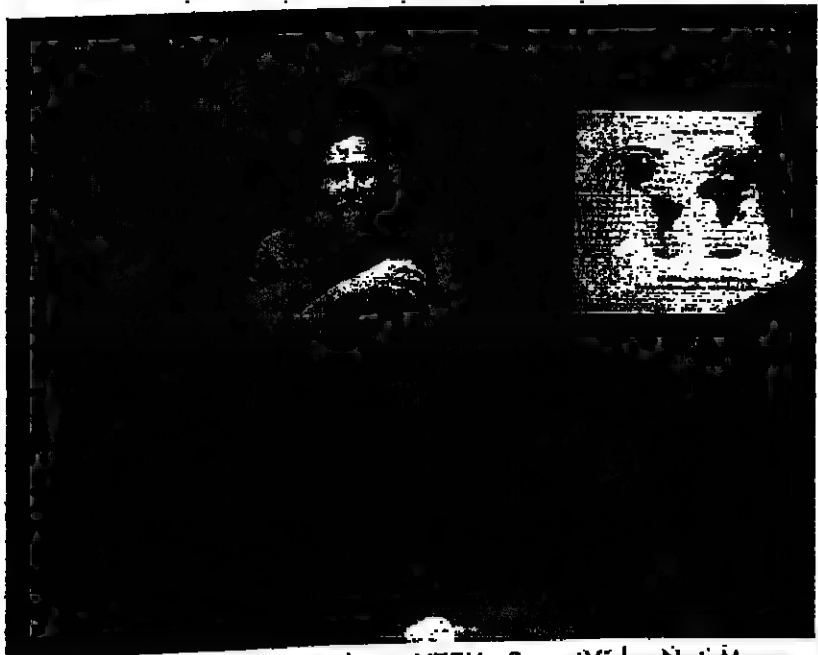
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Low tax rate attracts US IT companies

Foreign investors in the telecommunications, computer and software sectors see Ireland as an ideal base to set up pan-European operations

Ireland largely missed out on the Industrial Revolution. But it is firmly in the vanguard of today's changes in information technology.

Thanks to a far-sighted education policy, strong growth in the size of the labour pool, and a low tax regime, Ireland is now the home of 25 per cent of the US electronics investment outside the US.

As the only English-speaking member of the European Union's single currency - while the UK stays outside - Ireland is attracting a wave of foreign investment by companies looking to set up pan-European operations.

The 10 per cent tax rate is critical, particularly for companies in fast-growing sectors which need the capital to invest in new plant. For the larger US companies looking to reduce their taxable income and thus boost earnings, the low tax rate is a big incentive.

The government's decision to invest in a spread of new technical colleges in the 1970s was a key factor. Businesses also commend the improvements in the telecommunications infrastructure. Some 70 per cent of software customers are linked to digital exchanges and almost two-thirds of the transmission capacity is fibre-optic and satellite network connectivity to US, Europe and the Far East.

Much of the credit for this should go to Albert Reynolds, the former Irish prime minister who had the foresight when telecommunications minister in the late 1980s to argue the case for public spending on improving the network.

The policy is now reaping benefits with Ireland emerging as the favourite site for telephone-based service companies to run their pan-European operations. The government estimates the telecommunications industry will create around 10,000 jobs within the next 3 years.

But the main investment push has been for the big US computer companies. The

FT
IT

Focus on
IRELAND:
IT and
communications

A three-page report by
Nuala Moran and John
Murray-Brown in Dublin

list now includes most of the big names. Intel, the chip manufacturer, now has its European manufacturing centre at Leixlip just outside Dublin. Apple Computers - one of the few foreign investors in the sector to be unionised - has had a large

plant in Cork for more than a decade. IBM last year announced Ireland's largest ever investment creating a campus-style electronics factory. In the software sector, many of the leading international companies - Lotus, Microsoft, Oracle, and Sun Microsystems - have set up operations to localise and manufacture software.

The pleasant working environment, the "craic" or entertainment and, of course, the wonderful golf courses have played their part in luring overseas business.

But it is not just in foreign investment that Ireland is making inroads. Its indigenous sector - often campus-based companies which have developed niche products for the software industry - is now coming of age.

Ireland's home-grown industry is now the largest exporter of software products after the US.

The founders of Iona Technologies became overnight millionaires when the company went public on the US Nasdaq market for smaller companies. Iona is a leading provider of software prod-

ucts that enable the development, integration and management of network-based applications. CBT is another high profile Irish success developing and publishing a library of 558 software titles used in training schemes. But there are any number of smaller companies waiting in the wings.

Looking into the future, Ireland would seem well placed to sustain this performance. In 2000, it is estimated that 40 per cent of the Irish population will be under 25. Moreover, almost two-thirds of Ireland's graduates will be in engineering, science and business studies.

In July, Michael Martin, the education minister, announced he was creating an extra 2,000 university and training college places - which is a significant increase compared with the total annual intake in third level colleges of around 32,000.

According to the Irish Software Directorate, there are 9,250 employed in the Irish-owned firms and another 9,750 working for foreign software companies. But more revealing is the split in exports, with the Irish-owned companies selling 154,000 of products overseas in 1997, against 15,000 for the multinational sector.

Such is the demand for graduates and people with the right skills. Liam Farrel, a former Apple employee, has set up a web-based newsletter aimed at recruiting Irish expatriates from US and other universities. The company claims its Irish Emigrant Professional is currently delivered to more than 5,000 e-mail accounts in 60 countries and is read in more than 500 universities.

The influx of returning emigrants is vital. There are already reported skill shortages in certain activities such as software engineers and hardware technicians. But this is a problem faced by the industry worldwide.

Chris Horn, founder and chief executive of Iona - who chairs a study group to look at the skills issue - says "the challenge is to remain competitive."

One of the proposals of the study group is to encourage more women to take up jobs in the sector. Karen McGowan, head of the Industrial Development Agency, says it is crucial that parents recognise the career opportunities and make the choices necessary. There is some evidence the message is getting through. Of first preferences, science subjects now account for almost 50 per

cent of university applications and almost 80 per cent in the technical college entrants.

A bigger worry for Ireland is a change in the international market - particularly any downturn in personal computer demand. Intel's recent problems have received widespread local comment, as have the long-mooted restructuring plans of Apple.

The closure of Seagate Technologies' Clonsilla plant earlier this year was a blow. But officials at the IDA, which promotes foreign investment in Ireland, con-

cede that part of the problem was that Seagate's operation was a screwdriver operator and had not sunk deep roots in the Irish economy. When international prices turned against its product, it had little choice but to consider relocating elsewhere.

It is a measure of Ireland's dependence on the sector that some economists believe almost the only thing to trigger a recession in the economy will be a slump in worldwide demand for personal computers.

John
Murray-Brown

IRISH INFORMATION SOCIETY PROJECT • By Nuala Moran

During the Industrial Age, Ireland was handicapped by its geographical position and a lack of mineral resources. But in the Information Age, distance is irrelevant, and the most important raw materials are the skills and knowledge of the people.

Eager to capitalise on this move from a position of economic disadvantage to one of potential strength, in May 1997 the government launched the Information Society Project.

The three-year project aims to build awareness of the Information Society concept, making it a cornerstone of the country's approach to enterprise and investment, and to use this as a platform to attract further inward investment.

Playing hard to Ireland's strengths

Momentum increases in a three-year project to build awareness of the Information Society as a cornerstone of the country's approach to enterprise and investment

The Information Society Commission, formed of people in business and education, was set up to steer the project, with a brief to ensure that Ireland becomes a leading supplier and user in the Information Age.

Underlining the importance which the government gives the project, the Commission reports directly to the Taoiseach, Bertie Ahern, and is supported by a full-time secretariat run by his office.

Vivienne Jupp, chairman

of the Commission says: "The big thing about the Information Society is that it plays to Ireland's strengths - we have the creativity, learning and initiative to use information technology to create employment, wealth, and a vibrant, inclusive community."

Ms Jupp, who is also a partner in Andersen Consulting, with responsibility for Government Practice in Northern Europe, believes that many of the fundamen-

tal of an Information Society are already in place.

"The experience to date is that the public is both receptive and supportive. We have glimpsed the potential of the Information Society, with new forms of information-based employment contributing to the recent impressive economic growth."

Ireland also has some catching up to do - it has the lowest penetration of PCs in the home and small businesses of any country in

the European Union (EU). Internet usage is also low.

The Commission has identified five areas where action is required to build on the existing foundations:

- To further increase awareness of the potential of the Information Society.
- To ensure that Ireland has a robust and accessible telecommunications infrastructure.
- To foster the development of the skills base.
- To ensure that enterprises, and especially small and medium-sized companies (SMEs) adopt information and communications technologies, and are aware of the opportunities to develop information-based markets.
- To ensure that the government leads the way, as a world class user of information technology, by creating the appropriate regulatory environment, and by applying IT to provide the public with better access to government.

One of the main ways in which awareness has been increased is through the Information Town Project, organised by the public telecommunications company, Telecom Eireann.

Forty-five towns across the country took part in a competition to become a model wired town, with Ennis in County Clare, emerging as the winner. "Telecom Eireann was astounded by the response and the interest galvanised by the competition," says Ms Jupp.

A similar initiative is the Libraries Online Project supported by Microsoft and Tulp Computers, which gives people access to CD-ROM collections and the Internet in their local library. This allows libraries to play the same role with electronically stored information as they do with books, and ensures that people who do not own a PC are not excluded from the information age.

Microsoft is sponsoring three pilot sites at Ballyfermot in Dublin, Mayo County Library in Castlebar and Limerick City Library. Ten PCs have been installed at each site. While "Libraries Online" operates at 215 sites in the US and Canada, Ireland is the first country in Europe to take part in the project.

Anne Riordan, country manager for Microsoft Ireland says: "It has been a huge success story without PCs are using the libraries, a lot of users are senior citizens, and the service is also being targeted at the disabled and people who are illiterate."

In Ballyfermot, the first to go online, usage is now up to 86 per cent, and the library has been asked to open on Sunday.

Heavy investment by Telecom Eireann, beginning in the early 1980s means that Ireland has a well-developed telecom infrastructure, and this has been a factor in

attracting inward investment, particularly call-centre operations.

The market has been liberalised to some extent, and there are more than 40 service providers. The telecoms liberalisation process will be completed on 1 January 2000, when voice and telephony services and the provision of the public network are opened up to competitive supply.

However, Ms Jupp says greater competition is needed to reduce prices. "On the network side, the need is for more, lower-cost broadband. Investment is also needed to turn the cable TV networks from delivery only, to make them interac-

country.

□ In 1987, the public utility, the Electricity Supply Board (ESB) set up a joint venture with British Telecom to invest £75m over five years in building a telecoms network around ESB's overhead electricity cables and ducts.

□ NTL Telecom is building an undersea fibre optic ring linking Glasgow, Belfast and Dublin, in a £30m project, due to go into operation in the second half of 1998. On skills, the Commission believes that Ireland is well positioned for the Information Age, with a range of measures announced during 1997 to address problem areas.

"These represent a coherent and ambitious approach to a central element of the Information Society strategy," she says. (See facing page for an article on skills and details of these measures). However, Ms Jupp adds that the high level of economic growth is leading to skills shortages in some areas, and points out that unemployment, at around 10 per cent is still relatively high. "One of the key things is to educate people who are unemployed."

Ireland is already a favoured location for inward investment by the IT industry, and one of the aims of the Information Society Project is to maintain the perception of Ireland as a good location, not only for IT companies but for knowledge-based sectors such as pharmaceuticals and biotechnology.

The Commission also wants Irish companies, particularly SMEs, to make better use of IT. "We want to drive the message home that this will enable them to compete on an equal footing all over the world."

The Commission says that the government has a key role in the development of the information society, not only by funding and managing development projects, but also as a user.

A Freedom of Information Act came into effect in April 1998, obliging public bodies to publish their rules and guidelines for information access, and to develop record management systems that will allow the public appropriate access.

"It is encouraging to note that the majority of government departments now have Web sites, and that a good number of initiatives employing information and communications technologies for service delivery are in hand."

Progress has been made with the five objectives since the Information Society Project was set up a year ago. "The Commission is optimistic that Ireland has begun the task of shaping the future to our advantage as citizens, as business people, and as a country and an economy."

"Our goal is to increase the momentum while maintaining a focused approach."



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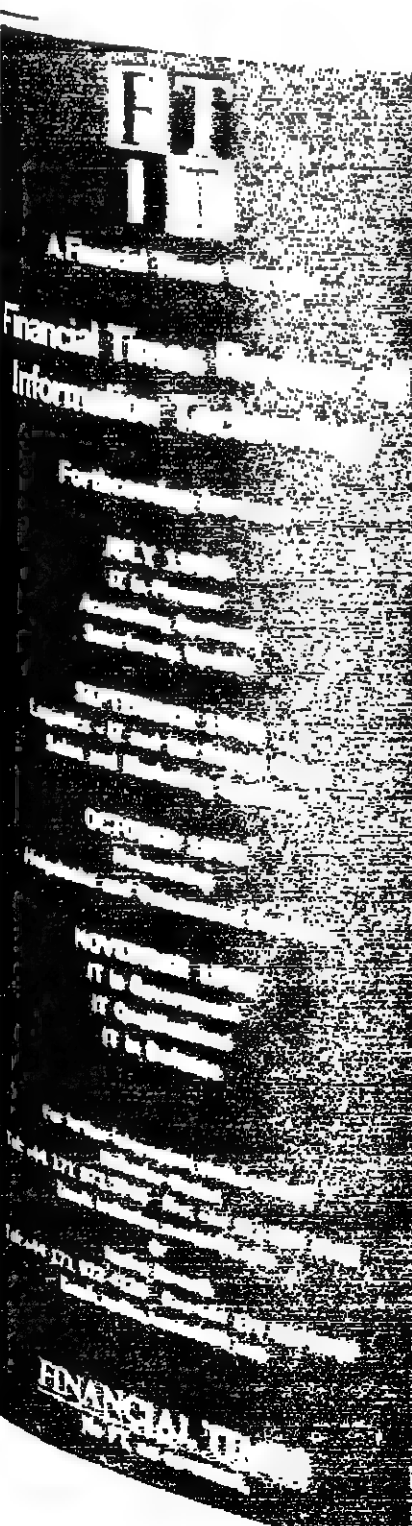
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IRELAND: Here and on the next page: Maria Moran reports on the country's IT skills and the tax incentives for inward investment

17 FT-IT

INWARD INVESTMENT • Dell Computer Corporation

A leader among PC makers

Dell's rapid production turnover means that the company can always offer the latest technology

In January 1998, Prime Minister Bertie Ahern announced the largest job creation project in the history of the Irish state – the expansion of Dell Computer's operations to create 3,000 jobs over three years.

Added to the 1,400 already employed at its manufacturing plant in Limerick, its country subsidiary and Dell Direct Call Centre, both in Bray, County Dublin, this will make Dell one of the largest private sector employers in the country.

The announcement was an important boost for the government's policy of attracting inward investment – more than 80 per cent of European investment by US IT companies is in Ireland.

Mary Harney, the minister for enterprise, trade and employment, pointed out that the investment could have gone to any location in Europe. "It is a terrific tribute to local management and all staff of Dell in Ireland that the decision was made in favour of Ireland and, in particular, existing Dell locations in this country."

However, decisions which affect global companies are rarely made in Ireland, and Dell's move also highlighted the fact that inward investment can be here today and gone tomorrow. Part of the expansion plan includes Dell taking over a factory in Limerick, left empty by the Korean company AST, when it scaled back its manufacturing operations at the end of 1997, with the loss of 300 jobs.

This was followed by the closure, at the beginning of December, of the US company Seagate Technology's disk drive manufacturing facility in Clonmel, County Tipperary with the loss of 1,400 jobs. The Seagate plant had only been open for two years.

There is also concern that Apple Computer, in Cork, which had a turnover of £72m in 1997, may be affected by its parent company's falling fortunes. In the past year, Apple's software arm, Claris Corporation, which employed over 130 staff, pulled out of Ireland.

When Dell first moved to Limerick it was able to take advantage of another of the ups and downs of inward investment, with many staff joining from Wang, which shortly before closed its European minicomputer manufacturing plant.

While Seagate's disk drive plant could be characterised as a screwdriver operation, taking



Dell is now one of the largest private sector employers in Ireland

advantage of grants, a low (10 per cent) rate of corporation tax, and relatively cheap labour, the government now has a policy of encouraging companies to put down roots, by introducing strategic functions such as sales, marketing, software development and customer support.

Commenting on Dell's expansion, the department of enterprise, trade and employment said: "Dell is a model of a deeply integrated company in its Irish operations, in line with the ideal type of company targeted by IDA Ireland (Industrial Development Authority) for sustained development within the Irish economy."

Dell established its European manufacturing facility in Limerick in 1990, with the first shipments in January 1991. The Irish sales subsidiary was set up in the same year, followed by the Dell Direct call centre.

According to the weekly magazine, *Irish Business and Finance*, Dell is now the fifth biggest company in Ireland, with a turnover of £21.76bn

in 1997. It is also the largest PC vendor, with sales of £55bn in 1997. Another leading US company, the chip manufacturer Intel, which has 4,000 staff in Ireland, is the largest in the country, with a turnover of £38.3bn in 1997, while Microsoft is sixth, with turnover of £21.6bn.

In Ireland, Dell has established one of the most advanced manufacturing systems in the world – building every machine to order, thus cutting out dealers and distributors, and providing mass customisation.

Every Dell PC shipped in Europe, the Middle East and Africa, is customised to suit the needs of the customer, and sent direct to the customer. It takes four working days from order to delivery.

"It takes four days to deliver, but we will have cheaper products the next day," says Mike Riley, managing director of Dell Ireland.

"There is no finished stockholding and we turn over our inventory 50 times a year."

"This also means we can always

offer the latest technology – there are no old machines to shift before we introduce new products."

Some customers place orders by phone, others face-to-face or by post, and an increasing number via the Internet. The direct model applies across all of Dell's operations. There is a sales force dealing with corporate customers, but machines are still made to individual order.

To sustain the direct model, all suppliers to the factory must be within an hour of the Limerick plant. Mr Riley says many suppliers have come to Ireland because they see Dell as a customer. "The new factory will greatly increase production volumes, driving the development of the local suppliers."

Dell maintains a database of every machine it ships, giving full details of the configuration and service history. This provides customer support staff with a precise history of a PC, which they can access as soon as they receive a call. It also allows support staff to talk directly to the person who made the machine, if necessary.

SKILLS AND TRAINING

Top of Europe's graduate league

Rapid growth in the IT sector is generating skills shortages

One of Ireland's most important assets, as it competes internationally to attract inward investment, and seeks to encourage the development of the indigenous IT sector, is its high level of skills: the country boasts a higher percentage of graduates than any other in Europe. One company more than any other underlines the attractions this holds for inward investors.

The US software company, Iscor, has reversed the usual model by siting its software development centre, not at its US headquarters in Santa Monica, California, but in Dublin.

"This is the primary development centre for Iscor worldwide," says David Longley, European general manager. "It is not the usual model, but the directors who set up the company in 1981 had previously had dealings in Ireland and knew the quality of graduates coming out of computer science courses really is top class."

Iscor now employs more than 200 staff worldwide. Of these 80 are in Ireland, of whom 85 per cent are graduates, with 65 working in software development.

The company specialises in open standards software for messaging and directory infrastructures.

Iscor is not alone in being attracted by the availability and quality of skills. According to the Industrial Development Authority, more than 8,000 jobs were created in the IT sector in 1997.

But recent rapid growth is now generating skills shortages and driving up salaries. Mr Longley says: "While we did not envisage this happening when we set up in 1981, it is obviously the price of success. It is still possible to recruit qualified staff, but salaries are rising. 'Two years ago the graduate starting salary was £12,000, it is now £18,000.'"

Glen Poor, product unit manager of Microsoft's worldwide product group, also in Dublin, agrees: "It's now getting competitive for labour. This is driving up costs – and it is an issue. There are 10 per cent too many companies out there competing with me for staff."

He has 30 vacancies and adds that one German company that set up in the area recently offered recruits a

25 per cent increase in salary.

In some cases, companies are advertising for staff not just in Ireland, but also to attract emigrants home. One company does most of its recruitment advertising in the US paper, *The Boston Globe*, an area with a large American Irish population.

But both Mr Longley and Mr Poor point out that IT skills shortages are a worldwide problem, and say they are encouraged by government initiatives to deal with shortages. These include:

- The Education Technology Investment Fund, launched in November 1997, which will invest £250m over three years to renew and modernise the infrastructure of further education institutions, particularly in technology areas, and develop training for emerging skills needs.

- The Schools IT 2000 programme – launched in 1997, this is a policy framework for improving IT teaching and equipment in schools. The government is

The public and private sectors are working together in training projects

investing £940m, and the private sector will also be involved.

For example, the telecoms company, Telecom Eirann, is contributing £10m. It includes: The Technology Integration Initiative – to install 60,000 multimedia computers in schools by 2001; the Teaching Skills Initiative – to develop the IT skills of 30,000 teachers (at least one per school); and the School Support Initiative – to encourage the use of IT in schools.

The government has also launched a campaign to encourage young people to take up jobs in the industry; 3,000 new places on IT courses came on stream in university and further education institutes; and a new industry/education initiative began in January 1998 to jointly recruit and train technicians.

Private sector training and recruitment companies are also playing a role.

Sensing the growing shortage of IT skills, the UK computer contracting agency Computer Team Group opened an office in

Dublin in January this year. Managing director Peter Smith, says: "A very, very large number of IT companies have been attracted to set up here over the last few years, and there are now 500 in and around Dublin."

"In addition, 400 of the world's leading financial services companies have offices in the city. A tremendous demand for IT skills has suddenly grown up, and there will be a huge increase in demand over the next few years."

Some of this demand will come from the proposed £1.5bn redevelopment of Dublin docklands which is forecast to create 30,000 new jobs in IT over the next ten years.

Mr Smith says that the IDA was keen to encourage one of the main UK IT contracting agencies to come to Ireland. "The market is very immature, and most companies would prefer to employ permanent staff," he says. "We will be working to develop the image of contracting as a professional services business."

"While there may be a perception that contractors will be here today, gone tomorrow, and won't care long term, in fact they are screened by us before they get near a client and provide a highly professional service."

Computer Team Group intends to attract contract staff from the UK and elsewhere. "There is, of course, a huge emigrant Irish population, and we will be attracting people to go home."

To date, there are 200 contractors on the books. IT companies are working in partnership with the government and education to bridge the skills gap. Many, such as Intel, have liaison officers working with universities and colleges on curriculum development and other skills issues. Others have initiated community-based training programmes. One example is the Ballymun Project, financed by Microsoft.

Ballymun is a disadvantaged area of Dublin, with 60 per cent unemployment. The first 35 graduates of the project, all Ballymun residents, completed the two-year course to become Microsoft Certified Professionals at the end of 1997.

"The course is successfully training previously long-term unemployed, giving them the skills needed to obtain high-paid professional jobs in the IT sector," says Anne Riordan, country business manager for Microsoft Ireland.

NEW TAXATION SYSTEM

A single bill to cover every tax

Taxpayers welcome a streamlined tax administration which is making compliance relatively easy

In 1994, Ireland's main tax gathering body, the Office of Revenue Commissioners (ORC), embarked on a complete overhaul of its computer systems which it claims will put Ireland at the forefront of tax administration in Europe. In this way, the Revenue will play its part in building Ireland's competitiveness – collecting

tax with the minimum intrusion on legitimate business. Traditionally, taxation authorities deal with tax payers on a tax-by-tax basis, maintaining separate records, and computer systems, for national insurance, value added tax, income tax, vehicle licences tax and so on.

When the ORC's project,

called Contax (for consolidation and taxation) is complete, taxpayers will receive a single bill covering every tax.

There are two keys to achieving this – the setting up of a single customer file, providing a complete record of an individual's liability to each tax, and the integration of the separate systems.

"Apart from making it easier for tax payers who comply, when we go after defaulters, we will only have to chase them once for every tax," says Sean Connolly, of the Information Systems Division of the ORC. Having an integrated system also makes it possible to look across the entire operations of a company to ensure that the returns for each tax are consistent.

Remodelling systems to create a single comprehensive record of all dealings with each customer is an objective of many public and private sector organisations. Banks, for example, have put considerable effort into creating a single record for each customer, regardless of the number of accounts they hold. In the same way, utilities companies supplying more than one service aim to cut costs by sending a single bill for water, gas and electricity. Similarly, the National Health Service would like to move to a single computerised record for each patient.

The ORC has already implemented several stages of its modernisation, and as a result has improved compliance, and boosted the tax take. In 1997 gross collection was over £17bn, up from £14.5bn in 1995.

Mr Connolly says that before the project began there was an estimated 150m of tax arrears. "That has fallen to £2bn, at a time when economic growth means there has been a higher tax liability," he says.

The aim is to reduce historic arrears to £600m by the end of 1999. During the same time, the cost of tax administration, at £160m a year, has fallen as a percentage of revenue.

Mr Connolly acknowledges that the ORC, working with Andersen Consulting, had one big advantage in developing an integrated system – and that is size.

"Ireland is quite a small country, with about 1.5m taxpayers, and so the data-

base is manageable. This compares with the computerisation of the tax system in the UK where the numbers involved create technical barriers because while systems work with relatively small numbers, they are hard to scale up," he adds.

When the Contax project began in 1994, the ORC "scouted the world" to find the best job model. "New Zealand is a similar size to us, had the most advanced systems, but really no one had exactly what we wanted. With Andersen Consulting, we drew up blueprints for the best form of integrated tax collection, as the latest client-server platforms," says Mr Connolly.

The ORC system consists of four elements:

1. The Common Registration System (CRS): This supports a common registration process for all taxes for which a taxpayer is liable. It

provides instant customer and tax profiles, and links transparently to legacy mainframe systems. Establishing CRS involved the consolidation of eight separate tax databases, built up over 20 years into one.

2. The Corporate Information Facility (CIF) allows managers to monitor performance indicators, such as payments and arrears distribution, and arrears distribution.

3. The Active Intervention Management System (AIM). This was set up to enable officials to identify and manage delinquent accounts, and thus increase pressure on non-compliers to pay up.

AIM uses flexible pre-programmed queries, such as how much an individual owes, or how late payment is, run against the data warehouse of customer information, to prioritise cases. Officials then have various options for dealing with a case, such as making tele-

phone contact to highlight the problem, issuing standard letters, or negotiating a deal to pay by instalment. Whatever the approach, non-payers are aware that the Revenue is on the case. Where required, records in other systems are synchronised with AIM actions and outcomes.

AIM, built using Computer Associates Open Ingres relational database management system, can support over 300 concurrent users who access the AIM servers from workstations in 130 tax offices around the country.

4. The Integrated Taxation Processing System (ITPS) – this is the final and most significant element of the modernisation programme; the system provides integrated billing and accounting across all taxes, using a common framework. When it comes on stream in 1999, it will replace a number of mainframe-based systems.

Two independent surveys carried out since the Contax project began show increased customer satisfaction, and a perception that the Revenue is a fair and efficient organisation, says Mr Connolly.

"Quality service is thus seen to underpin compliance, and create an effective tax collection system," he says. The system provides improved customer service for those who comply, with effective early enforcement for those who do not.

One result of improving the system is that less time is taken up dealing with those who comply, leaving the ORC free to focus attention on non-payers. Defaulters are presented, and their names released to the newspapers.

Contax is also supporting moves to crack down on what Mr Connolly calls "the hard end" of the black economy. Working in collaboration with the police and customs, the ORC has set up the Criminal Assets Bureau, which is helping to tackle crime through seeking property and charging criminals on tax infringements.

"The implementation of Contax has made it far easier to deal with the tax system than in the past. Historically it was the compliant people who got all our attention. Now we can put our efforts into tracking down those who don't pay," adds Mr Connolly.

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INWARD INVESTMENT • SOFTWARE 'LOCALISATION' BY MICROSOFT

Fine tuning for market needs

Microsoft outsources much of its software testing to Irish IT companies

The most impressive indicator of the success of the IT sector in Ireland is the high level of software exports. Around 40 per cent of packaged software and 60 per cent of business applications sold in Europe come from Ireland, making it the second largest software exporting country after the US.

A high proportion of this stems from Microsoft, which has its European software localisation centre at Leopardstown in Dublin. The Worldwide Product Group Ireland (WPGI) was set up in 1988 to provide the European and South American markets with country-specific versions of Microsoft's products, reflecting local languages and culture. The group has grown from localising two products, MS-DOS and PC Word, into two languages in 1988, to working on more than 100 products in 25 languages today.

Microsoft has 1,000 staff in Ireland, more than any other

operation outside the headquarters in Seattle. In 1997, the turnover of the Irish operation was £1.6bn, and it was the sixth biggest company in the country.

More than 40 per cent of employees in WPGI come from mainland Europe, and there are also staff from Brazil and Mexico. They ensure that the translated software is culturally and linguistically accurate. Irish employees are primarily involved in program management, software engineering, testing and packaging.

Localisation begins at the product design stage, with WPGI managers attending planning meetings in Seattle where the specification for new products is drawn up. Localisation requirements must be built into the design because certain technical features may be needed to enable a product to work correctly when translated into another language.

The localisation process begins once prototypes are stable and close to the final version of the product. It involves the adaptation of software, and the translation of manuals and on-screen text.

The actual translation of the software is carried out by third parties in the target country, and managed from

Dublin. There is also an extensive testing process in purpose-built labs, to ensure that when the software is modified, it still works on the appropriate hardware.

"In other words, we think about localisation in three ways at the design stage in Seattle, we think about producing a product which will work in all markets; then we think about adaptations for the local market, such as spelling-checkers, or modem drivers for modems that are only sold in Europe; and we translate into the appropriate language," says Glen Poor, product unit manager at WPGI.

"We've developed a fine level of understanding of local market needs - we want to get a product right first time."

Often, consideration of cultural differences can be very subtle, especially in games software, or products such as the electronic encyclopaedia, Encarta.

Localisation has to take place in tandem with US/English language development to allow simultaneous shipment of new products. This means that Ireland is also at the centre of an extensive data network allowing development teams in the US and Ireland instant on-line access to each other's work.

"This is a very big private network, of which the entire European segment is managed and supported from Dublin," says Mr Poor.

Microsoft fosters the development of local companies, outsourcing certain aspects of testing, which might be crudely summarised as "looking for bugs."

"It is a business strategy to outsource this sort of work, because it allows us to readily adjust resources as the business cycle goes up and down," says Mr Poor.

"There are great advantages in having lots of other IT companies around us."

Lots of smaller companies provide testing and other services - we might use them for six months, while another company uses them for the rest of the year."

The presence of other IT companies is also important to Microsoft's sales and marketing arm in Ireland.

"We work on the indirect model, so it is important there is a cluster of vendors and other third parties," says Anne Riordan, country manager for Microsoft Ireland. "Our relationships with resellers and consultants are paramount."

Microsoft deals with about 70 solutions providers and

1,000 resellers.

One of the downsides of this supporting infrastructure is that Ireland has the worst record in western Europe for software piracy.

The Business Software Alliance (BSA), set up in 1997 to combat piracy, says that more than two out of every three business software applications in use is illegally copied. The Alliance estimates that piracy is costing Irish companies over £30m in lost revenue each year.

"One reason that piracy is high in Ireland is because all the facilities for printing manuals and packaging software are here," says Mr Poor. The BSA believes another reason is that users do not understand that when they buy software, they are not buying it outright, but being granted a licence to use it on a given number of machines.

US software companies operating in Ireland, including Microsoft, Novell and Lotus, have caused considerable embarrassment in official circles by drawing attention to the losses they incur as a result of software piracy. The government hopes that new copyright legislation, due to be introduced in July, will reduce the problem.



One of three global hubs: Digital's new call centre in the Dublin serves customers worldwide

INWARD INVESTMENT • DIGITAL EQUIPMENT IRELAND

Putting down deep roots

Digital is well-positioned to take advantage of shifts in Ireland's IT services sector

It was a harsh blow for Galway, and for Ireland's inward investment strategy in 1993 when Digital hit hard times and closed its factory in the city with the loss of 700 jobs.

Digital Equipment Ireland, one of the longest established overseas IT companies in Ireland, was set up in 1971 to manufacture minicomputers.

The transformation of its Irish operations since the Galway closure challenges the view that inward investment merely attracts "screw-driver operations" which are here today, when the grants are being handed out, but gone tomorrow, when fortunes change.

Digital Ireland is also an exemplar for the way in which the IT sector in general has matured, and how inward investment companies are putting down deep roots in Irish soil.

The focus of Digital's operations in Ireland has shifted, as has the industry's focus, from hardware, to software and services.

Galway is the home of the European Software Centre, which employs 550, whilst Dublin is the base for the Ireland sales and marketing arm, which employs 400. Also, in Dublin, the company has a Year 2000 Competency Centre, serving customers worldwide, and a European Customer Support Centre. It has just opened a multi-million pound call centre, at a new site in the city, which will form one of three global hubs for Digital's customer service and support.

"Obviously, the nature of what you do is likely to change over time, as the industry and the technology develops," says Peter Donnelly, country manager for Digital.

The investment in the call centre is a tremendous accolade for Ireland. The initiative to develop the call centre came from within Digital Ireland, and shows the passion within the company that the talent is here. Without that kind of passion, no company will get commitment from its headquarters.

When preparing the business case for putting the call centre in Ireland, the availability of government grants was not even mentioned.

Mr Donnelly says: "Undoubtedly grants cannot be a disincentive, but there are a lot of other factors that must be weighed up in making this kind of investment. You can get grants wherever you go."

Tony Devine, vendor operations manager, has worked for Digital for 20 years, and his career path tracks the evolution of Digital Ireland. "It has come from a small manufacturing facility to be a diverse, multi-functional operation. The business is no longer focused on the Irish market, but on the whole of Europe."

Mr Devine says that the

management in Ireland "has been very pro-active" in working to make Ireland a centre of expertise for Europe and beyond.

Whereas having a small home market is usually considered a disadvantage, in this context it becomes an advantage.

"We are very much a part of Digital's European business, and would be considered as the location for any Digital projects," he says. Developments in telecommunications mean that Ireland's geographical position, on the Western edge of the continent, is no longer an issue. "The technology means that customer satisfaction can be achieved remotely."

The call centre operation began in 1994 as a pilot to see if it was possible to deliver customer service remotely.

"Digital had lots of centres providing direct customer support, and needed to consolidate. The industry was changing from proprietary systems to multivendor client server systems, and customers were no longer technical specialists in the computer room but PC users at their desks," says Mr Devine. "You can't support this type of system with the same methodology as before."

The pilot was successful and the European customer support service in Ireland now has 400 staff, with room for more in the new call centre premises. The centre handles not only Digital cus-



Peter Donnelly, Digital's country manager for Ireland has the talent

tomers, but also services outsourcing contracts which Digital has with companies including Microsoft and Compaq.

"Dublin was an attractive place for the call centre because it is cost competitive, has the infrastructure, and so on. There is also strong government support. But the fundamental piece is the people," says Mr Devine. "The pool of skills in the UK and other countries is declining. Ireland is still producing a large number of people with a high level of skills."

At present, there are 27,000 graduates a year coming on to the labour market, of which 9,000 to 10,000 have science degrees. School leavers who have had IT training in school are also becoming an increasingly important source of recruits for call centres.

In addition, the booming economy and the availability

of jobs is enticing expatriates to return home.

"As we are serving customers across Europe we also have a requirement for language skills. The government made a positive move some years ago to encourage the setting up of mixed science and language courses."

"In addition, Dublin has acquired a reputation as a very cosmopolitan city, and there is a tremendous influx of foreign nationals."

Mr Devine adds: "As time goes on, we see ourselves less and less as Digital Ireland, and more and more Digital Europe. The fact that we're in Ireland becomes almost incidental, the point is that we've got the resource base."

Another example of the external focus of Digital's Irish operations is the European Year 2000 Competency Centre, set up in 1994.

The centre's manager, Cliff Murphy, explains that Digital Ireland was the first unit in the company to carry out a Year 2000 assessment for the Department of Social Welfare, a large Digital user, and, as a result, the first to source and develop Year 2000 conversion tools for Digital systems.

"We became a centre of expertise within Digital, and have done a number of conversion projects in the US, including some of the earliest work for financial institutions on the east coast."

UK clients include British Gas and British Aerospace. The centre has 44 staff and expects this to rise to over 70 as new contracts come on stream during this year.

"Anyone who hasn't started Year 2000 work is now too late," he says. "We are currently working with clients, helping them to prioritise which systems to do."

At the same time, adds Mr Murphy, the cost of Year 2000 work is going up by 10 per cent per quarter.

Digital Ireland is now facing up to further change with the takeover by Compaq. Digital is currently the second largest IT supplier to the domestic market, after IBM, with a turnover of £62m in 1997.

The merger with Compaq, which had turnover of £33m in 1997, will put the combined company in number one position.

The two companies have a pre-existing relationship in Ireland, with Digital providing warranty services for Compaq's PCs and servers. "The merger must put us in a position of strength, bearing in mind the relatively small overlap. It must mean a stronger company in the future," says Mr Donnelly.

Before the closure of the Galway plant, Digital had 1,700 employees in Ireland, now it has 1,400.

"The way that the business has changed means that Digital in Ireland is certainly better positioned to take advantage of shifts in the industry. Software and services are where the value is now."

"Black boxes are black boxes: most are made in the Far East for economic reasons."

INDIGENEOUS SOFTWARE COMPANIES

Strategy to increase exports five-fold in next four years

Ireland aims to grow large firms that can dominate global markets

Over the past 20 years, the Irish software industry has become one of the most important sectors of the economy, now employing 30,000 people.

But while exports from the sector as a whole are worth £4.6bn, exports from indigenous companies are valued at only £140m.

To put this in perspective, there are 500 indigenous companies and 100 overseas companies.

If current growth rates can be maintained, by 2002 the industry will employ 40,000 people, supporting exports of £10bn, according to the Irish Software Association (ISA).

More ambitiously, the ISA states in its recent publication, *Strategy for Growth*, that in the next four years indigenous companies can increase exports by five times, to £720m.

With a home market that is almost irrelevant, the success of the indigenous software companies depends on exports. The ISA recognises that this means companies need global marketing, sales,

distribution and support mechanisms.

"These activities require financial resources on a scale previously unimaginable by the Irish industry and will demand a completely new investment climate."

To achieve the ISA's target, Ireland not only needs to increase the number of companies, but more importantly, to grow large firms that can dominate global markets in their chosen niches.

The pre-eminent role model for Irish companies setting out to achieve this, is the middleware company, Iona Technologies, which was spun out of Trinity College Dublin (TCD) in 1991. It floated on the US stock exchange Nasdaq in February 1997, raising \$138m, the 5th largest software company flotation.

Iona has its roots in an EU-funded Esprit research project set up in 1984 to tackle the issue of interoperability of heterogeneous computer systems.

Collaborators on the project included Bull Information Systems, ICL, Siemens, Olivetti, the Universities of Glasgow and Pisa and TCD. "The grant from Esprit was absolutely critical in getting the company going," says Chris Horn, founder

and chief executive of Iona.

"As a result, we were the only company to have a commercial implementation of the Corba standard (Common Object Request Broker Architecture), designed to enable the interoperability of software applications, when it was set out by the US standards body, the Object Management Group, in 1988."

The main hurdle in getting the company started was a lack of venture capital. "At that stage, it was impossible to get venture capital in Ireland," he says. "We also looked in the UK, but there was no interest. There was interest from US venture capital companies, but they wanted us to relocate."

As a result, the three founders had to work part time as consultants to fund themselves and the company, and at the same time work at developing the business.

The advantage of this was that Iona has always traded profitably. However, Mr Horn says, "with venture capital backing, we could have gone public a year earlier."

One factor that helped was TCD's Campus Company Scheme, which allows academics to gradually reduce the amount of work they do for the university over three years, and to be paid pro rata during this period.

In the early days, Iona also received government job grants, a one-off payment for each new staff member.

Iona's development was also aided by the presence of so many multinational IT companies in Dublin.

"We could literally hop in the car and drive round the industrial estates to make presentations to all of the significant US companies, and several Japanese ones, too."

"If they weren't doing the work here, they could tell us who to go to in the US," says Mr Horn.

Iona was set up in 1991 and shipped its first product in 1993. This was a turning point because the product, Orbix, attracted the attention of Sun Microsystems, which invested \$600,000 in Iona, in return for 25 per cent of the equity. (A canny investment, since Sun made \$50m of its stake when Iona went public).

From here, turnover grew rapidly, rising from \$2m in 1993, to \$48m in 1997. Staff numbers rose from eight to 470.

Such is the success of Iona

that Mr Horn says: "We did not really need to go public for the money."

But middleware is 'bet your business' kind of software. We have a lot of customers in the US who wanted the comfort factor of dealing with a US-quoted company. The rigour that is demanded by a Nasdaq listing helped us to win bigger US accounts."

Another of Ireland's rising software companies, Piercom, also has its roots in two Esprit projects, Redo and Recycle, which developed re-engineering techniques for migrating legacy mainframe systems to client server architectures.

The shortage of venture capital was also a problem for Piercom when it was spun out of the University of Limerick in 1994. Much of the initial capital came from one of the founders, Professor Tony Cahill: the com-

pany also received £50,000 from the development agency, Shannon Development.

"In the early days it was very difficult to get money - I spent much of 1995 and 1996 travelling Ireland and the UK looking for venture capital," recalls Charles Stanley-Smith, co-founder and technical director. "It was difficult to get venture capital for software. At this time investors were still into bricks and mortar; they wanted something they could see."

In its first round of funding in 1994, Piercom raised £500,000, from private investors, of which £250,000 came from the US software entrepreneur, John Cullinane, founder of Cullinane Systems.

Then in December 1997, Piercom raised £1.3m from existing investors, and for the first time received venture capital backing from ACT, Ireland's leading venture capital company.

Mr Stanley-Smith believes that Iona's flotation, "proved to the world that software is a viable thing to back, and brought it home to investors that Irish software is leading the world."

In 1997, less than £15m

was invested by venture capital firms in 16 software companies, according to the ISA.

"While an improvement on previous years, this is totally inadequate to finance Irish companies hoping to compete in global markets," says the ISA, adding that "at least £500m in venture capital is needed to sustain development of the sector."

By July this year, Piercom expects to have its third product on the market. "Now we are generating revenue, we will go for a placement in the next number of months," says Bill Henegry, chairman and finance director. "The cash will be used to complete product development."

The most significant element in Piercom's commercial development is the relationship it has with the Irish subsidiary of Digital. The two worked together on a project to assess the scale of the Year 2000 computer date problem at the department of social welfare.

As a result, Digital adopted Piercom's automated Year 2000 conversion tool for use in its date conversion projects worldwide.

"This is highly significant for our credibility. Piercom went through an evaluation process against lots of other tools from the US and elsewhere, and we came out on top," says Mr Stanley-Smith. "This brings great kudos because it shows that Irish software is world class."

Piercom exports 99 per cent of its products, but like Iona, Mr Stanley-Smith believes that the home market is important as a source of expertise and advice.

"It's a useful microcosm," he explains. "Everyone knows everyone. You can get close to users who are not necessarily your customers, and get a good view of the issues affecting them."

One result of the growth of the software sector, and the Irish economy in general, is that people who emigrated to work are coming back to the country, bringing their expertise with them.

Mr Henegry, who joined Piercom in 1997, is a good example. He worked for Wang for 13 years, including a five-year stint in Brussels.

"The growth of Irish software now makes it an extremely exciting area to be in. It is very important to the development of the sector that so many people have worked abroad because - apart from excellent contacts - it helps with the mindset of exporting."

Mr Devine says that the

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مكتبة من الكتب

Practical benefits – and problems

The digital computer's half century report card still suggests some room for improvement, reports Philip Manchester

Later this month, the IT industry will celebrate the 50th anniversary of one of the most important events of the century – the execution of the first stored program in a general-purpose computer.

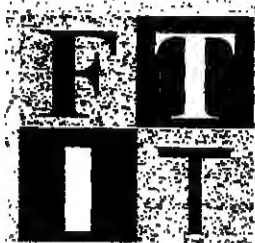
At 11 am on June 21, 1948, the program, written by Tom Kilburn to calculate "the highest proper factor of two to the 18th power", ran successfully at the University of Manchester in the UK on a computer nicknamed "Baby".

It took another thirty years from these humble beginnings for the "electronic brain" of the 1940s to flower into the huge international industry that it is now. By the late 1970s, most of today's leading players were in position and a steady stream of innovation spilled out to create the modern IT industry. And over the last 20 years, IT has moved into every corner of human activity – and a myriad innovations and fortunes have been built on the foundation laid by "Baby".

Digital computers have, of course, had their greatest impact on commerce.

Firstly, in the automation of production in factories, then in accountancy, distribution and operational control and, most recently, in mass communications.

The engine room of world economic activity – from the international financial trading networks to the local corner shop – is now tied inextricably to IT. With the shift to electronic commerce, the bonds will become even tighter.



Fifty years of IT

This month marks one of the most important events of the century – the execution of the first stored program in a general-purpose computer.

While IT has brought obvious practical benefits – improvements to design and production processes, better medicine, more flexible financial instruments – it has caused problems, too. Worries over security and privacy, coupled with concern over the anarchic nature of the Internet, have countered some of the benefits.

Mystique

Unfulfilled promise is also long-running gripe about IT. "There is no doubt that productivity gains have been made – IT has automated a whole bundle of boring processes. And it has allowed us to do things that we could not do before. But there has also been lots of over-selling and filling the technology with mystique – which leads to unfulfilled expectations," says Philip Crawford, European vice president at Oracle and veteran observer of the IT industry.

"But I think a significant change is happening. Technology is now mainstream – both to life and to business –

and people have a tremendous yearning to understand what it can really do. They will be less likely to be taken in by the hype."

Some see the imminent problems that result from the so-called Millennium bomb dispelling the mystique of IT, however. "The Year 2000 is going to be a big shock to a lot of people – and one that could lead to a backlash against information technology. People will ask: how could this happen? And they won't get a satisfactory answer," warns Ian Hugo of Taskforce 2000.

He describes the year 2000 problem as a "major discontinuity" which will have devastating consequences on the commercial use of IT. This, he says, will lead to companies "ditching, scratching and re-building" their IT systems.

They might come to some interesting – and, currently unorthodox – conclusions about IT. Bob Anderson, director of Xerox's UK research laboratory at Cambridge, agrees that the Year 2000 issue could change attitudes significantly. "Year 2000 and European monetary union (EMU) will force everyone to step back and ask serious questions about IT. We are shackled to it and we will only realise how much when it goes wrong," he says. One strand of Xerox



The financial sector is now the largest investor in information technology in the business world. Pictured here are dealers surrounded by IT systems at the Philadelphia Stock Exchange

research – into the use of paper in offices – points to a future which balances IT more evenly with traditional ways of working.

"We do not see paper disappearing – we see it as ephemeral. Paper will become a temporary storage medium – and permanent records will increasingly be kept electronically."

"With technologies such as desktop scanning, we can move in and out of the digital world easily," Mr Anderson explains.

His colleague Monica Beltracchi, director of Xerox's Grenoble laboratory in France, suggests that business must find better ways to measure genuine productivity. "We all know that IT comes with a cost and we must ensure that the benefits exceed the cost. But benefits – productivity gains, performance gains, efficiency – are difficult to measure and we must find ways to do it," she explains.

John Rade, chief executive of the US software company, Computron, also sees better metrics as the key to finding the real benefits of IT. He moved from working in factory process control systems during the 1970s and hoped

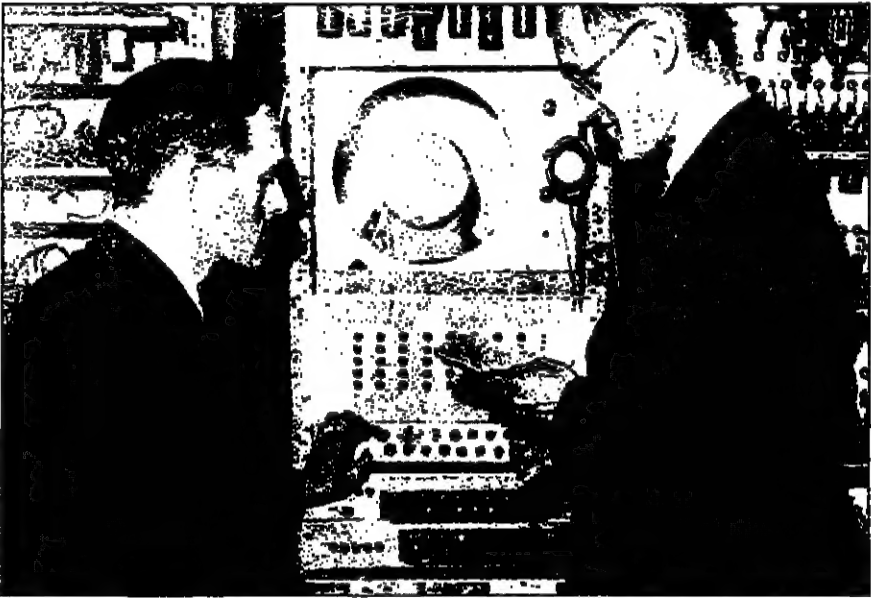
to bring the same level of successful automation of general business processes.

"One of the big disappointments is that we have not managed to be so successful at automating business processes as we were in the factory. But then if you can't measure it, how can you tell?"

"The biggest hope is that the next generation – which has been heavily exposed to IT – will see it as a useful tool and understand how it can be applied. If you really want to change an organisation you need a combination of people, process and technology to make it work."

Computers have come a

long way in the half century since "Baby". Dr Kilburn's little program has blossomed into the giant global software industry and "general-purpose" digital computers are literally everywhere. It could, however, take another half century for the world to harness the real power of IT.



Historic moment in June, 1948 in what was then called 'electrotechnics': Dr Tom Kilburn, left, with Professor Freddie Williams successfully run the first program on the 'Baby' computer in Manchester

INTERVIEW WITH A PIONEER

History made on a train

Philip Manchester talks to Dr Tom Kilburn about how he came to be the first digital computer programmer

Immediately after the Second World War, most of the components needed to build what we now know as the modern digital computer were in place.

War-time efforts on both sides of the Atlantic had produced workable designs and funds were available to promote further research.

Only one key component was missing, a viable way of storing and retrieving data or an electronic memory. Without a memory, computers were made to work by a complicated and time-consuming process of setting switches. But with an electronic memory, a program and its data could be loaded electronically – turning the computer into a true, general-purpose machine.

Tom Kilburn, a Cambridge maths graduate who retrained as an electrical engineer to work on secret radar systems during the war, found himself part of the race to build a memory on a research project at the University of Manchester.

"I worked with electronics expert Freddie Williams at the Telecommunications Research Establishment (TRE) in Malvern. When he was invited to take the chair in what they called 'electrotechnics' at Manchester, he asked me to join him and work on a project to build a digital memory," recalls Dr Kilburn.

During the war, Prof. Williams, a recognised expert on electrical circuitry, worked with Dr Kilburn on cathode ray tubes (CRT) at TRE. This was to be the starting point of their quest for a memory – although, originally, the research was the result of an effort to improve CRT technology.

"One of the problems of radar systems involved dis-

persing persistent echoes on the CRT. Professor Williams saw an experiment on a visit to the US in 1946 which aimed to solve this problem. This gave him the idea of using the CRT to make a digital memory," Dr Kilburn explains.

The CRT's tendency to hold on to an image – although unwelcome on a radar screen – intrigued Prof. Williams. He realised that it could be used to store digital

data and, more importantly, retrieve it.

"Computing was one possible application for this – but not the only one," says Dr Kilburn.

"We were, of course, aware of other efforts to build a memory for a computer – at the National Physical Laboratory in the UK and RCA's Selectron in the US, for example. NPL based their developments on mercury tubes but we saw the answer in CRT."

The CRT-based memory offered a clear advantage over the mercury tube: it held data in a way that

could be accessed directly – a true random access memory (RAM). The mercury tube technology stored its data in a sequential form and was much slower to access.

"There is an inherent performance advantage in using CRT as a Ram. It is simply a matter of re-directing the cathode ray – which can be done very quickly," Dr Kilburn explains.

He points out that using a Ram – rather than a sequential store – also simplifies the design of the computer itself. The NPL computer, for example, was much more complex because it had to cope with delays in getting its data.

By early 1948, the Manchester project was well advanced. Prof. Williams was keen to demonstrate the modified CRT – later known as "the Williams tube" – and show that it could store and retrieve digital data.

"The only way to prove the CRT store worked was to build a computer – what came to be known as 'Baby'. Then we needed a task for it to perform – a program," recalls Dr Kilburn.

The world's first program, a simple maths problem, was created in an unlikely place: "I probably did most of the work on the train from Manchester to Dewsbury, where I lived with my family," says Dr Kilburn.

Success

At 11 am on June 21, 1948, the Manchester "Baby" made history when Dr Kilburn's program ran successfully for the first time. The program found the highest proper factor of two to the power of 18 by repeated subtraction.

Although the event passed off with little interest outside the (then) tiny world of the computer, the UK government was quick to see its importance. It funded a joint development project with the emerging UK computer company, Ferranti.

Three years later, Ferranti installed the Mark 1 – a commercially-built computer based on the original "Baby", at the university... and the computer industry, as we know it today, took its first tentative steps. The Mark 1 became the ancestor of later generations of computer from the Ferranti Atlas in the 1960s to the ICL mainframes of the 1970s.

"The CRT store also took on an independent life with other computer builders. The University of Illinois and the University of California both built computers with CRT stores. And IBM's early 701 and 707 computers used CRT too," says Dr Kilburn.



Dr Tom Kilburn today, with a rebuild of the original 'Baby' computer and a cathode ray tube. Work on the world's first computer program was done on the train between Manchester to Dewsbury, where Dr Kilburn lived with his family.

Picture supplied by the Department of Computer Science, University of Manchester

A year of celebrations

The city of Manchester plans to celebrate the 50th anniversary of the first stored program computer throughout 1998. In addition to a series of conferences and symposiums at the University of Manchester, the Festival will also seek broader appeal with pop concerts and arts events leading up to the June 21 anniversary.

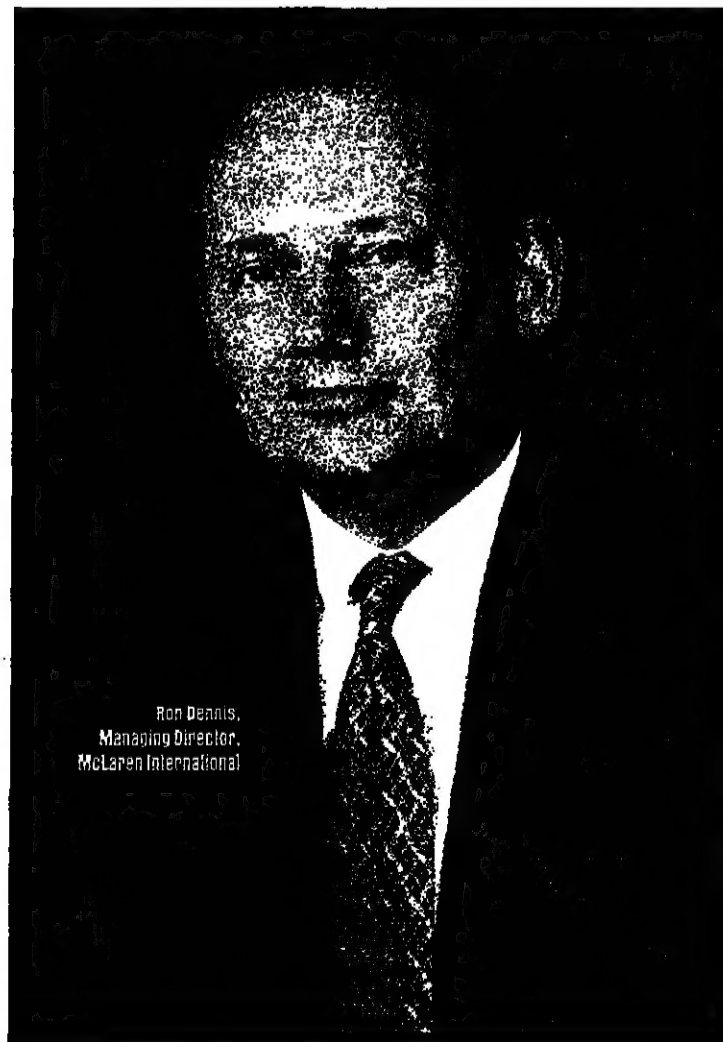
Many of the main events, under the umbrella of the Digital Summer, will take place this month – including a one-day free, pop music festival in the city centre on

June 13. Dr Tom Kilburn will be honoured by the city at a civic reception in the Bridgewater Hall on June 17. The reception will be followed by a public concert by the world famous Halle Orchestra. Dr Kilburn's program will be run on a recreated "Baby" computer at the Manchester Museum of Science and Industry on June 21.

In September, Manchester acts as joint host to the International Symposium of Electronic Arts followed by a G8 summit on electronic commerce.

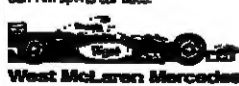
- More details from Digital Summer's website: ds98.org.uk
- Europress, a software company based near Manchester, has released a multimedia CD-Rom containing a complete history of the "Baby" computer.
- The CD-Rom includes an interview with Dr Kilburn and a working simulation of the original computer. It is available from Europress, price £18.99, telephone 0800 454 380.
- Further details from the Europress website: www.europress.co.uk

Software Winner



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"I have a favorite saying, that is, to come in second is to be the first of the losers," says Ron Dennis. "At McLaren we're interested only in winning and we associate ourselves only with winning companies. With Computer Associates and McLaren, we have two winning companies sharing a common goal and common partnership."

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Introducing Electronic Commerce into an organisation can revolutionise the way it does business. Simply being able to sell products over the World Wide Web can turn the smallest company into a global, 24 hours a day business handling an enormous quantity of orders. The implications are, however, much wider than this. By the new millennium, businesses will have to transform the way they communicate, both internally and with the outside world, using Internet, Intranet and Extranet technologies. In addition, customers will expect to have a personal relationship with their suppliers and Websites will have to change dynamically to reflect each person's requirements.

Through its commitment to Java technology and strategic partnerships with leading IT providers such as Sun Microsystems, Sage International Inc., the world leader in component based Java applications, and Oracle, Relay Business Systems can independently evaluate, integrate and implement the latest in proven IT solutions to allow companies to implement E-Commerce throughout the corporate enterprise.

The Institute of Directors - Relationship Commerce in Action

The Institute of Directors new Web presence (<http://www.i.d.co.uk>), developed by Relay, is an excellent example of E-Commerce in action. The IoD's investment in E-Commerce will transform the way it operates, making itself more accessible to the business community while providing a speedy and personal on-line service to members and non-members alike. As Andrew Main Wilson, Managing Director of the Institute of Directors Extranet says: "We are sure that our new Web presence will bring us even closer to our members and enable us to cater for their requests quickly. Much of our work centres around supplying written information, and we have identified the Internet as an increasingly important way to provide this to our members."

The IoD Website marks the introduction of the Dynamic Relationship Commerce Suite into the UK market. Representing the most comprehensive and broadest suite of solutions for building Relationship Commerce applications, the Dynamic Suite will enable the IoD to build a profile of each Website visitor by tracking their individual requirements and tailoring the information provided accordingly.

Brian Hobbs, Sales and Marketing Director of Relay Business Systems, comments: "We have supplied the IoD with the technology to take it into the next millennium, facilitating hardware requirements and targeting Website visitors of the future. The cutting edge technology will enable the IoD to target Website visitors with customised information relevant to their interests and create online relationships, which is essential in E-Commerce. We have supplied the IoD with the very best Internet solutions, enabling it to create strategies that will help its Website stand out from the crowd."

The Sun Java technology supplied to the IoD provides it with the systems it needs to be highly competitive and allows it to distribute consistent applications across the network. This is due to Java's true platform independence which breaks the fixed links between application and operating system.

The IoD's new system includes a Java application offering highly advanced technology - the Sun Ultra™ 2 Server System. This will enable multiprocessing, high-bandwidth networking, high-performance graphics and unparalleled applications performance. The Ultra 2 will provide the IoD with high performance that allows voice, text, graphics, video and video conferencing to be run alongside primary applications such as word processing and billing systems.

Also supplied is the high-performance, easily managed Sun Netra™ J Server, administering not only thin clients, but working seamlessly with Java-enabled PCs and workstations. The server will provide the IoD with easy access to legacy databases and other critical corporate information, allowing the IoD to tailor its marketing and sales promotions to the specific needs and interests of the Website visitors in a way that has not been possible before.

The platform independent J10 JavaStation was chosen to take full advantage of the network, and deliver everything from Java applications and services to complex, integrated system and network management. The J10 does not require desktop administration and forms an integral part of Sun Microsystems' Complete Enterprise Network Computing Solution, enabling the IoD to use network based computing to its competitive advantage.

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PC-PoS continues expansion

PC-PoS, Europe's largest trade distributor of point of sale hardware to the retail industry, continues to expand its product range and sales. Established in 1984, and now with backing from 3i, the company today has a turnover of seven million pounds per annum.

PC-PoS recently hosted one of the 'villages' at Retail Solutions 98, Europe's largest retail IT show. These are specialist zones devoted to particular themes or technologies which are run by leading companies in the industry. PC-PoS and its trading partners created a 'retail jungle', complete with palm trees and straw huts, to symbolise the bewildering array of choice confronting the retailer - a jungle through which PC-PoS can always clear a path.

In a significant development PC-PoS has been appointed distributor for the UK, Europe and the Middle East by Javelin Systems Inc., who provide open system touchscreen computers for retail, food service and industrial markets. This appointment continues the PC-PoS expansion both at home and overseas and enables the company to offer for the first time notebook PC technology for the point of sale.

New products recently launched by the company include a complete range of LCD monitors, new and improved Epson thermal printers and keyboards incorporating smart card technology.

For further information contact PC-PoS at:
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Internet will
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CHIEF INFORMATION OFFICERS' ROLE

Internet will be crucial to business, say IT directors

From Page 1:

was changing, the top response implied that there was more uncertainty in their jobs.

One possible explanation is that Year 2000 date change problems weigh particularly heavily on US IT executives' minds - nearly 40 per cent agreed with the assertion that "solving the Year 2000 computer date problem is scuttling other projects of funds" - a much higher figure than among CIOs in Europe.

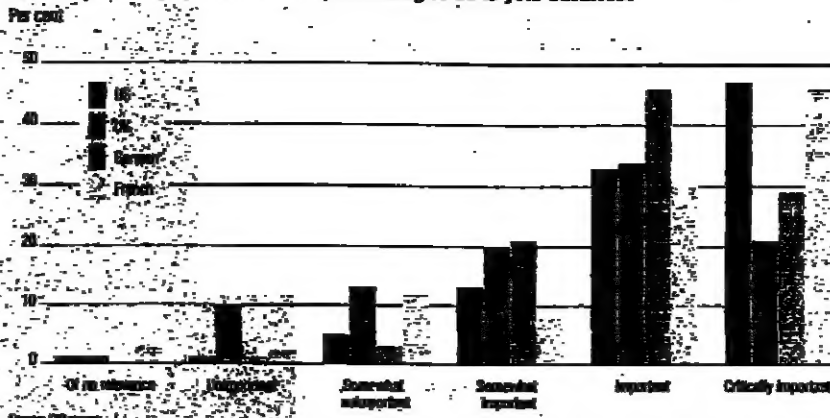
In other surveys, IDC has noted that US organisations have a relatively large installed base of mainframe machines running so-called "legacy" applications. "These systems tend to have

a commensurately higher level of Year 2000 problems, compared to newer client server systems," said IDC.

There were also marked differences in the perceived importance of Java, the "hot" operating language developed by Sun Microsystems which offers the prospect of truly portable "write once, run anywhere" code.

While more than a third of German IT directors thought Java was "important" or "critically important", in Britain only 13 per cent held the same view. The positive German response to Java was even higher when compared with the US where it might have been expected that Java would have built a particularly strong following.

In future, how important will Internet technologies be to your business?



Almost all IT directors in the US, Germany and France believe that Internet technologies will be important or crucial to their business. Only in the UK are more doubts expressed - the top response was "lack of planning/focus", the main impediment cited in Germany and France - in Germany by a surprisingly high margin (nearly 50 per cent of respondents made this comment without prompting). "Perhaps this explodes the myth of German efficiency," said an IDC analyst.

Predictably, US and UK-based IT departments are also trying harder to retain key IT staff. The two most popular incentives are career "fast tracking" and management training. Overall,

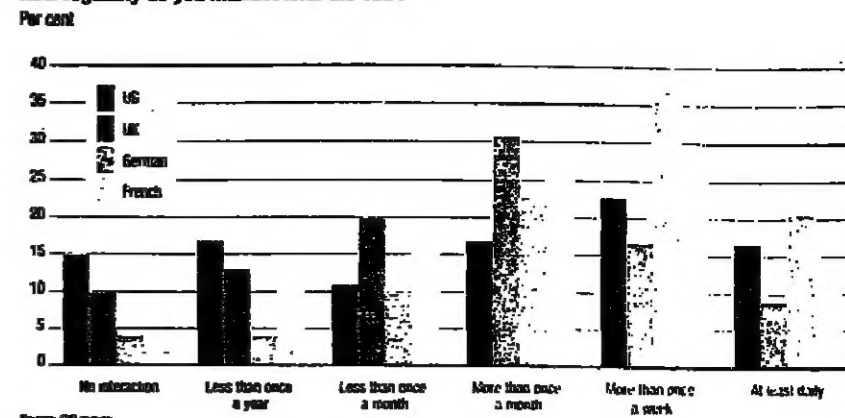
French companies offered the fewest incentives. Despite the inevitable focus on pay rates in a tight labour market, IT directors in all the countries claimed that they were more motivated by new and stimulating job challenges than by financial betterment.

Financial betterment was judged less important in the

US - perhaps because CIOs there are already highly paid - where 35 per cent of respondents said it was "important" or "critically important", and most important in the UK, where 58 per cent said it was "important" or "critically important".

More detailed findings on the report on the changing

How regularly do you interact with the CEO?



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More detailed findings on the report on the changing

role of the CIO/IT director will appear in future issues of the FT-IT Review. For details about the report, contact Joyce Renney at Korn/Ferry International in London, telephone (44 171) 312 2100, fax (44 171) 312 2150 or write to Korn/Ferry International, 252 Regent Street, London W1R 5DA

BRITISH COMPUTER SOCIETY • Information Systems Management Award • Report by John Kavanagh

Halifax team wins top award

An IT project to support the world's biggest ever extension of share ownership has won the UK's 1998 Information Systems Management Award, organised by the British Computer Society in association with the Financial Times.

The conversion of the financial services organisation, Halifax Building Society, to a quoted company created 7.5m shareholders as customers received free shares.

The size of the placement, and the expectation that 2m of the customers would sell their shares immediately, brought fears that the London Stock Exchange would be overloaded by the 10-fold increase in normal business, with repercussions across the world.

But Halifax anticipated the problems by creating a new company, Halifax Share Dealing, initially to handle the conversion and then to become a trading service in all stocks.

"The delivery of such a major mission-critical IT project involving a large number of internal technology teams and external suppliers required a very well structured and disciplined approach," Halifax director John Miller told the award judges.

"We put great emphasis on joint business and IT teams at all levels and on keeping their plans closely aligned."

High level plans were



Awards night in London: guest speaker Keith Oates of Marks and Spencer, pictured centre, with members of the winning Halifax team - left to right: John Miller, Halifax director, with Sue Concannon, Claudia Hardaker, Mike Channon and Rick Gilling

developed by Halifax business and IT project managers. Joint user and IT workshops, also involving suppliers, specified the business and system requirements. Users and IT specialists worked together on testing.

A bespoke order-handling system now links to the Halifax share register to the automated execution system run by its main market maker, Merrill Lynch. Share price information is received by satellite and fed to the order capture system.

Shareholder information is available via touch-tone telephones, controlled by customer identification numbers. Individual orders at the same price are aggregated and executed automatically.

The chairman of the award judges, Nigel Horne of consultancy KPMG, summed up the achievement by highlighting the fact that the City predicted error rates of 1 per cent, whereas Halifax achieved 0.1 per cent.

The award was presented

by Keith Oates, deputy chairman of Marks and Spencer, as guest speaker at a dinner attended by more than 100 senior IT people.

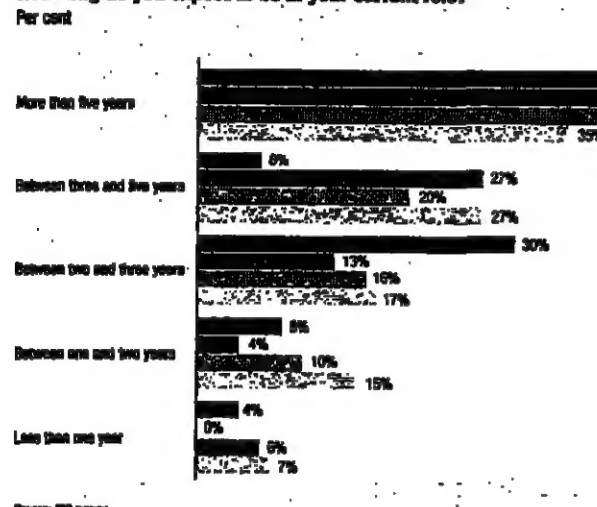
Highly commended

The runners-up were Knowsley Metropolitan Borough Council, with a community information programme aimed at helping people and companies in one of the UK's poorest areas to get

access to information systems through training, information and services. Also highly commended was ScottishPower, which switched from a mainframe to network computing, with only four out of 800 projects running late and a state turnover of just 3 per cent.

The awards were sponsored in this their eighth year by Blue Circle Industries, Deloitte & Touche, KPMG, Unisys, the information systems company, and Woolwich, the financial services company.

How long do you expect to be in your current role?



OUTSOURCING DEAL • By Paul Taylor

NatWest awards key contract to NCR

NatWest, the UK banking group, has consolidated the management of both its ATM (automated teller machine) network and branch IT equipment by awarding service contracts worth more than £50m over the next three years to NCR, the US-based specialist computer and computer services group.

The deal, one of the country's largest single-supplier maintenance and support agreements for a bank's branch network, is an important win for NCR and a key contract award for NatWest which has been reviewing its IT services management strategy over the past year in an effort to improve customer service.

Under the outsourcing deal, NCR will be responsible for NatWest's 2,800 ATMs which were supplied by the US group, and more than 100,000 other items of IT equipment spread over 2,000 locations. NCR estimates that 96 per cent of all equipment problems will be fixed in less than four hours.

"By consolidating our equipment and maintenance with one strategic supplier, we can keep customer service at a consistently high level across the network through faster rectification of equipment problems," says Mark Sandham, NatWest's head of IT commercial services. "It will also ease management overheads and reduce overall costs," he said.

NCR will use the group's remote ATM monitoring software to predict potential problems and provide remote diagnostics. ATM network problems can be a source of considerable customer frustration at many banks and NCR believes that its ability to predict and fix problems before they develop will enable NatWest to provide an enhanced service to customers.

INTERVIEW WITH UNISYS' LAWRENCE WEINBACH

A sharper focus on five verticle markets

From page three:

good now, in a good environment. They will be even better in a slow environment. At least, that is my prognosis.

But, as with most other traditional computer groups, Unisys has found that it is the services business which is growing most dramatically. "We are doing systems integration and outsourcing and we have a very big business in networking," Mr Weinbach says. Part of the reason for the recent rapid growth of the services market is because of the skills that are required and the speed with which clients want the project deployed, he adds.

"When you think about five to 10 years ago there was an awful lot of custom

applications. The number of custom applications today is decreasing and the reason is not that custom applications aren't good - in fact, they give you a better competitive edge - but the time to market is too long...you may get a better mousetrap, but someone may be there before you."

Accordingly, Unisys is focusing on what Mr Weinbach describes as "repeatable solutions" - sophisticated software and services packages customised to individual customer requirements while retaining a common core. "We are focusing on five vertical markets (finance, telecoms, public sector, transportation and commercial) and expanding the solutions set we have within those markets," says the Unisys chief executive.

By building upon its expertise in its chosen market segments, Unisys executives believe the group can help define where those industries are going in terms of technology. "That is a clear differentiator for us," says one manager.

The success of this strategy is reflected in some of the new customers Unisys has won over the past few years. In the UK, the group's biggest client in financial services is now Halifax (see report above: *Halifax team wins top award*), though Halifax was not a client three years ago. In telecoms, Unisys' biggest client in Europe is now Spain's Telefonica, while News International in London has signed up for the Unisys newspaper printing package. "If you look into all of our market

sectors we can show significant growth year-on-year and new name clients - and, of course, that's the single most difficult thing to do in our business," says Mr Weinbach.

Tight controls

But despite the rapid growth of Unisys' services business, which accounted for 63 per cent of its \$6.5bn sales last year, Mr Weinbach is determined to keep tight controls over it. For example, he insists that every outsourcing contract has to stand on its own.

"I don't see outsourcing as a loss-leader for us. I see outsourcing as a very viable business opportunity with definable and measurable metrics which need to be met in order to take on the

assignment." This year, Unisys is controlling the growth in the services business "to make sure we don't have the same kinds of issues the company had before. One of the big problems I found was that the company took on a lot of contracts that it should not have taken on, contracts that had low margin, or where we didn't have the capability or we were buying market-share. We are not doing that now. We will walk away from a contract if it doesn't meet our margin requirements."

Summarising his rejuvenation strategy, the new Unisys chief executive says "we are going to build on the engineering capability that we have in the enterprise area, where we're very good. And in services, we are going to expand systems

integration, repeatable solutions, networking and outsourcing and we are going to do it in verticals which we understand."

Such statements are music to Wall Street's ears. Analysts are already forecasting profits will more than double this year, and the rating agencies are considering upgrading the group. The market capitalisation of the company has gone from under \$1bn a year ago to close to \$5bn today.

"The financial community today doesn't question the debt reduction programme, or the long-term viability any more," notes Mr Weinbach. But he adds, "I look at what we are doing at Unisys today as a work in progress, so far it has been very successful, but I believe we have more work to do."

LONDON SYMPOSIUM: WEDNESDAY, JUNE 10

Electronic commerce today and its role in your business

InterForum, in association with the Financial Times and the Business Link Network across the UK, invites you to a one-day symposium on Wednesday, June 10 at the Queen Elizabeth Conference Centre, Westminster.

The keynote address will be given by Barbara Roche, MP, Minister for Small Firms, Trade and Industry. The chairman of the event will be Peter Marlett, editor of the International edition of the Financial Times.

For details of the symposium fee, programme and speakers, call InterForum, telephone 01784 473 605, fax 01784 473 606. Email: telnet@interforum.org. Details are also available on the InterForum website: <http://www.interforum.org>.

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NEW COMPETITION: Entries close July 1, 1998 - details on website: <http://www.uk.uninet>



FT BUSINESS WEB SITE OF 1998

New search for winning web sites. Submitting your site to the competition is a chance to win a prize of £1,000. The competition is open to all UK businesses. The deadline for entries is July 1, 1998. For more details, visit the competition website at <http://www.uk.uninet>.

Measurable financial benefits. Have you tracked the effectiveness of your Web site? Do you know how many visitors it attracts? Do you know how many of those visitors are actually buying your products or services? The competition will help you find out.

Business Information. Do you have a website? Do you know how many visitors it attracts? Do you know how many of those visitors are actually buying your products or services? The competition will help you find out.

Entants must fall into the following categories:

- Small and medium-sized businesses (under 50 employees)
- Large organisations (over 50 employees)
- Public sector

Prizes. The objective of this competition is to recognise the best websites in the UK. The winners will receive a prize of £1,000. The competition is open to all UK businesses. The deadline for entries is July 1, 1998. For more details, visit the competition website at <http://www.uk.uninet>.

How to enter. The Web site address <http://www.uk.uninet> will be a not-in-kind contribution and an electronic form on the competition. Telephone details are also available from Lisa Duffell at UNINET UK +44 (0) 1223 250 543

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